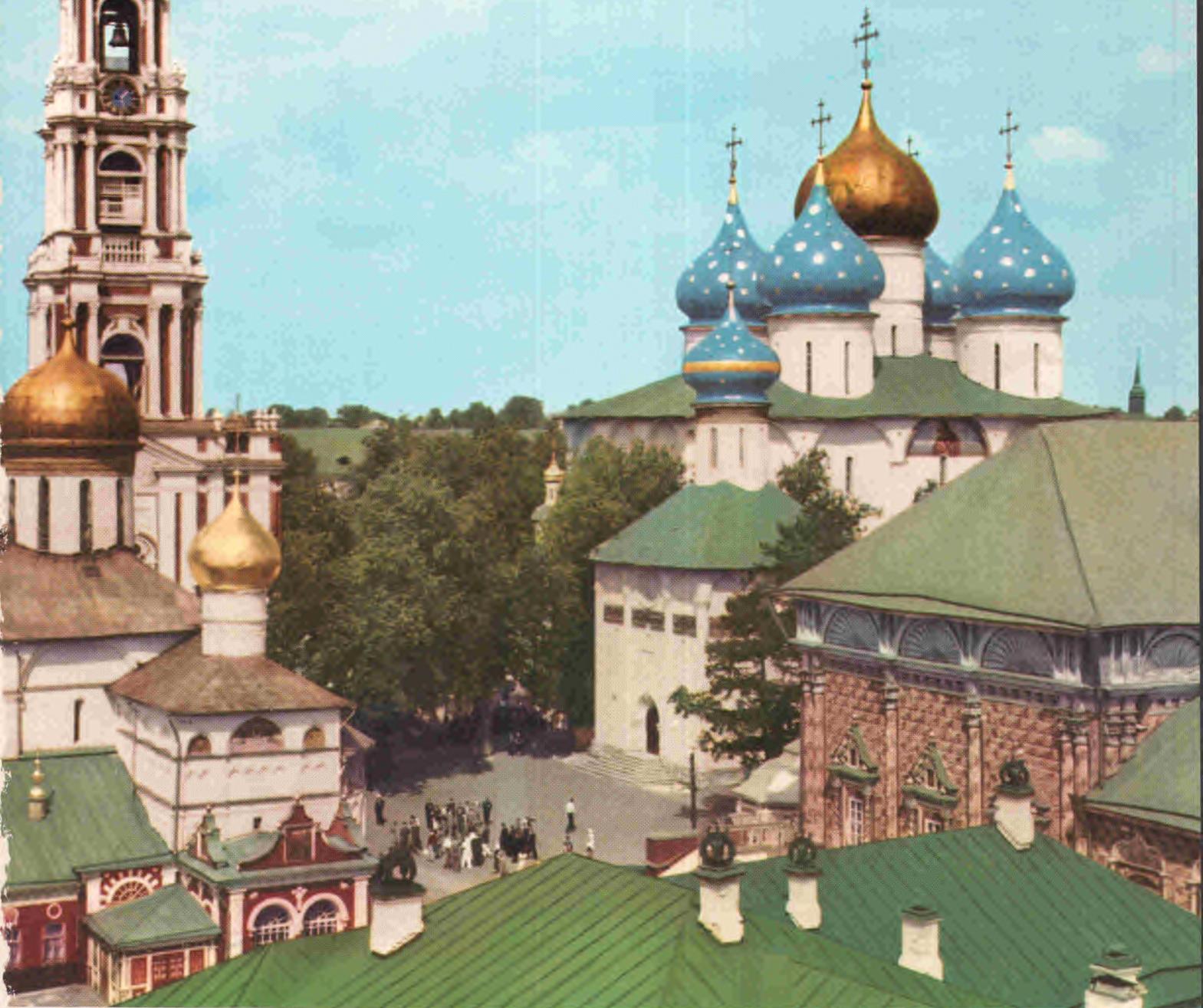


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THE WORLD AND ITS PEOPLES



The religious center of Zagorsk, near Moscow.

USSR



GREYSTONE PRESS/NEW YORK

Jacqueline Greenhalgh

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THE IMMENSE LAND THAT IS THE UNION OF SOVIET SOCIALIST REPUBLICS IS THE largest country in the world. It stretches from the Baltic Sea and the Black Sea on the west to the shores of the Pacific on the east, and from the Arctic Ocean in the north to the great mountains of Central and Southwestern Asia in the south.

The Soviet Union is nearly 7000 miles from west to east and extends 2500 miles from north to south. It covers 1.9 million square miles in Europe and 6.7 million in Asia, and the 1959 Census reported its total population as 208,826,000. It is larger than the face of the moon that is seen from the earth.

It takes a week for an express train to travel from Moscow to Vladivostok—distance equal to a trip from New York to Cape Horn. When it is noon in Moscow, the people of Vladivostok are eating supper. When, in mid-summer, the date palms mature in the oases of Soviet Central Asia, icy winds from the Arctic drive grinding blocks of ice toward the Siberian coast. The Caspian Sea lies 92 feet below the level of the ocean; while Communism Peak in Soviet Central Asia—24,590 feet—rivals Mount Everest.

In every way the Soviet Union inspires the use of superlatives. The geographical units—the plains, mountains, rivers and lakes—are immense.

Yet while the extremes are striking, the over-all landscape is monotonously uniform. An almost uninterrupted plain covers millions of square miles, running from Poland to Siberia; only the low Ural Mountains interrupt its vast expanse.

The climate, too, varies: Arctic in the far north; continental further south, with long, severe winters and short, hot summers; subtropical and even desert in the Caucasus and Soviet Central Asia.

Is the U.S.S.R. an Asian or a European state?

Territorially, it is Asian; three-quarters of its area lies on that continent. Yet the heartland of the nation has always been in its European section, and 61 per cent of its people live there. Perhaps the best answer to the question is that the U.S.S.R. forms a geographical entity in itself. It can almost be thought of as a continent, largely bounded by ice-blocked seas and towering mountain ranges—a prisoner of its own continentality.



Winter in the Kremlin—heart of the immense geographical complex of the Soviet Union.

GENERAL DESCRIPTION

Location and Boundaries

The northernmost point of the continental Soviet Union is Cape Chelyuskin, $77^{\circ}44'$ N. latitude and the southernmost point is the city of Kushka, $35^{\circ}18'$ N. latitude, on the frontier of Afghanistan. The western tip of the U.S.S.R. is Mamonovo on the Baltic, $19^{\circ}59'$ E. longitude. The most easterly point is Cape Dezhnev (East Cape) on the Bering Strait, $169^{\circ}40'$ E. of Greenwich. The U.S.S.R. is bounded on the west by Norway, Finland, the Baltic Sea, Poland, Czechoslovakia, Hungary and Romania. The southern

boundary is the Black Sea, Turkey, Iran, the Caspian Sea, Afghanistan, China (Sinkiang and Manchuria), Mongolia, the Amur and Ussuri rivers, and Korea.

The northern border is the Arctic Ocean. There are four island chains off the northern coast: Novaya Zemlya, Franz Josef Land, Severnaya Zemlya and the Novosibirskiye (New Siberian) Islands. The eastern coast is bordered by the Bering Strait, the Bering Sea, the Sea of Okhotsk and the Sea of Japan. Off this coast are the island of Sakhalin and the Kuril Islands.

Coastlines

The enormous length of coastline does not modify the essential continentality of the Soviet Union, for

few of the surrounding seas modify the climate of the adjacent regions. The exceptions are the Black Sea, whose waters are fairly warm even in winter (46° F. in January at Sevastopol). The Black Sea causes the mild climate of the southern Crimea and western Caucasia. The Pacific Ocean affects the climate of the Soviet Far East. In Vladivostok winters are dry but extremely cold while the summers are hot and humid. Inland, away from the mediating effect of the sea, the climate is harsher.

All the other seas, including the Sea of Azov have winter temperatures below freezing and cool summer temperatures. In August, the Gulf of Finland is 57° F., and the Sea of Okhotsk in 53° F. The polar seas are frozen from five to twelve months a year and have low temperatures during the brief Arctic summers.

There are great differences in salt

The Dnepr, shown here near its headwaters at Smolensk, rises in the Valday Hills, high in western Russia, and winds in a southerly direction for some 1400 miles through Belorussia and the Ukraine and into the Black Sea. Navigable for much of its sinuous length, the Dnepr is the third longest river in Europe (after the Volga and the Danube).



content and tides among the various seas. The salinity varies from 30 parts per 1000 for the polar seas and the northwest Pacific to 16 and 18 parts per 1000 for the Black Sea, into which large rivers flow. The Sea of Azov is freshened by the Don River and has only 1.8 to 9 parts per 1000. The Gulf of Finland is almost fresh water with only 1 or 2 parts per 1000 salt content.

In the Leningrad area the highest tide is only several inches, but in the Penzhina Bay off the Sea of Okhotsk the difference between low and high water is 36 feet.

The Black and Baltic seas are the warmest and most useful of the Soviet seas, but their outlets are controlled by foreign powers. This political constriction caused tsarist and Soviet diplomacy to place a high value on the eastern and polar seas.

The coastline of the U.S.S.R. is about 37,300 miles in length. It is relatively small in comparison to the surface area of the U.S.S.R. The coasts have few harbors, indentations, gulfs or peninsulas. In addition they are sometimes low and marshy, and in other places the coast is studded with rocks and treacherous shoals. All of the sea coasts, except the Black Sea, are adversely affected by ice in winter.

LOCATION OF MAJOR PORTS

Despite these difficulties the Soviet coastline has some economic value. There are good ports on the Black Sea and the Sea of Azov, where the steep coast offers protection from the north winds. On the Baltic Sea, at the mouths of the Western Dvina and the Neva rivers, are Riga and Leningrad. In the far northwest the port of Murmansk is ice free throughout the year.

Both the Arctic and northwestern Pacific coastlines have severe climatic conditions, inhospitable hinterlands and few ports. (Archangel) Arkhangelsk on the White Sea and Vladivostok on the Sea of Japan are "part time" ports because of ice. The port of Nikolayevsk on the Amur River in the Soviet Far East is ice-blocked for six months of the year. Vladivostok, on the same latitude as Boston, is blocked for three-and-one-half months. All these Soviet ports are beset by storms, fog and great icebergs.

The Land Forms

The basic relief of the U.S.S.R. is



"The Quiet Don," immortalized in Mikhail Sholokov's novels of life among the Don Cossacks. This great river flows peacefully for about 1200 miles from its origin in the hills of central European Russia and empties into the Sea of Azov, which connects with the Black Sea. The Don's importance as a transportation artery increased greatly with the construction, in the 1950s, of the Volga-Don Canal. This vital man-made waterway provides the Volga (which flows into the landlocked Caspian Sea) with a much-needed and long-envisioned maritime outlet.

simple. It is an immense plain surrounded by mountains and, in places, there are imposing plateaus. However, the geological history is quite complex. Underlying the territory of the U.S.S.R. is a bed of ancient crystalline rocks. In European Russia the ancient crystalline rock exists as a worn down platform (peneplain) buried under a layer of gently undulating sedimentary rocks which have been on top of it for millions of years. In Siberia these Archean rocks are at the surface over large areas, as in the Anabar massif in north-central Siberia. Both the European and the Asian crystalline

areas became peneplains in the Archean era and remained almost unchanged for millions of years. Meanwhile Eurasia was being formed by Huronian and Caledonian folding. The old crystalline areas remained almost unchanged by the folding, and only the least resistant points gave way and curved slightly.

MOUNTAIN FORMING

About half way through the Primary period, in the carboniferous era, the Hercynian mountain-forming brought notable changes to the structure of the Russo-Siberian platform. A vast sea covered the area.



A heavy snowfall fails to cool the ardor of a young couple in Moscow, where the long winter begins in October and persists through late April or early May. The change of seasons in European Russia is generally abrupt and is often accompanied by violent storms.

Then the Russian and Siberian masses received tangential thrusts from the east, and the sediments deposited on the bottom of the sea were violently compressed into a series of gigantic folds. This was the origin of the Ural Mountains.

Hercynian folding also affected the southern edge of the Russian platform in the Donets region and in Asia, where the Altay, Sayan, Yablonovy, Stanovoy and Great Khingan mountains were formed. These mountains constitute the southern edge of the Central Siberian Upland. This folding was the last to affect the Russo-Siberian platform. The Alpine folding of the Tertiary period only affected its periphery.

The encroachments and retreats of the sea extended over the almost flat area and were of major importance in the development of the Russo-Siberian land mass. The old sea is the reason for the abundance of marine sedimentary rocks in this region. The action of the sea was much more important and prolonged in European Russia, however, than in Siberia.

Alpine mountain-forming directly affected only the periphery of the Russo-Siberian platform, but its after effects were not limited to that region alone. It had powerful repercussions upon the ancient formations which had been eroded into plains. As folding and uplifting occurred, mountains were thrust upward and given a new shape. This powerful rampart of Palaeozoic and Tertiary mountain ranges is still one of the most interesting examples of the structure of the earth.

ASIAN MOUNTAIN COMPLEX

Two great mountain complexes, called knots, dominate the structure of Asia. One of these knots is the Pamir knot. The other is the Armenian knot. From these two great centers extend a complex of connected mountain chains which form buttresses to the great plateaus of Asia. The extensions of these mountains are arranged in great arcs, concentric with the Siberian shield.

The rugged terrain has numerous gorges and mountain ranges which are sometimes covered by glaciers, such as the Kamchatka, Anadyr,

Kolima, Verkhoyansk, Stanovoy, Yablonovy and Sayan mountains—all in Siberia. In these mountains, ancient forms with softer outlines exist alongside young forms with rugged outline and active volcanoes. The volcanoes are indicative of the recent geological disturbance. These disturbances were particularly numerous in the Kamchatka Peninsula.

To the west are the peaks of the Altay (rising in the U.S.S.R. to 15,157 feet on Mt. Belukha), whose rugged outlines recall those of the Swiss Alps.

Southwest of the Altay are more impressive ranges. The colossal Tien-Shan (Pobeda Peak, 24,406 feet) and the Hindu Kush in northeast Afgha-

nistan have immense glaciers that feed the rivers which water the Turan Lowlands of Soviet Central Asia. Farther west the ranges soften in outline.

A long way west of the Pamir knot, but closely related to the Armenian knot, is the barrier range of the Elburz Mountains. This forms the southern end of the Caspian basin and the northern border of Iran. The Elburz extend to the Armenian knot and complete the great backbone structure of Asia. The lofty massifs of Armenia are south of the Transcaucasian valley, which is flanked on the north by the great rampart of the Greater Caucasus Mountains. These Caucasus

With the coming of summer, millions of vacationing Russians discard their greatcoats and descend en masse on the summer resorts of the southern Crimea and the northeast coast of the Black Sea. Here the climate is warm and gentle, resembling that of the Mediterranean. Yalta, shown here, is one of the most popular vacation spots on the Black Sea.



SOVIET UNION

SOVIET UNION

© Capital

Moscow D 6

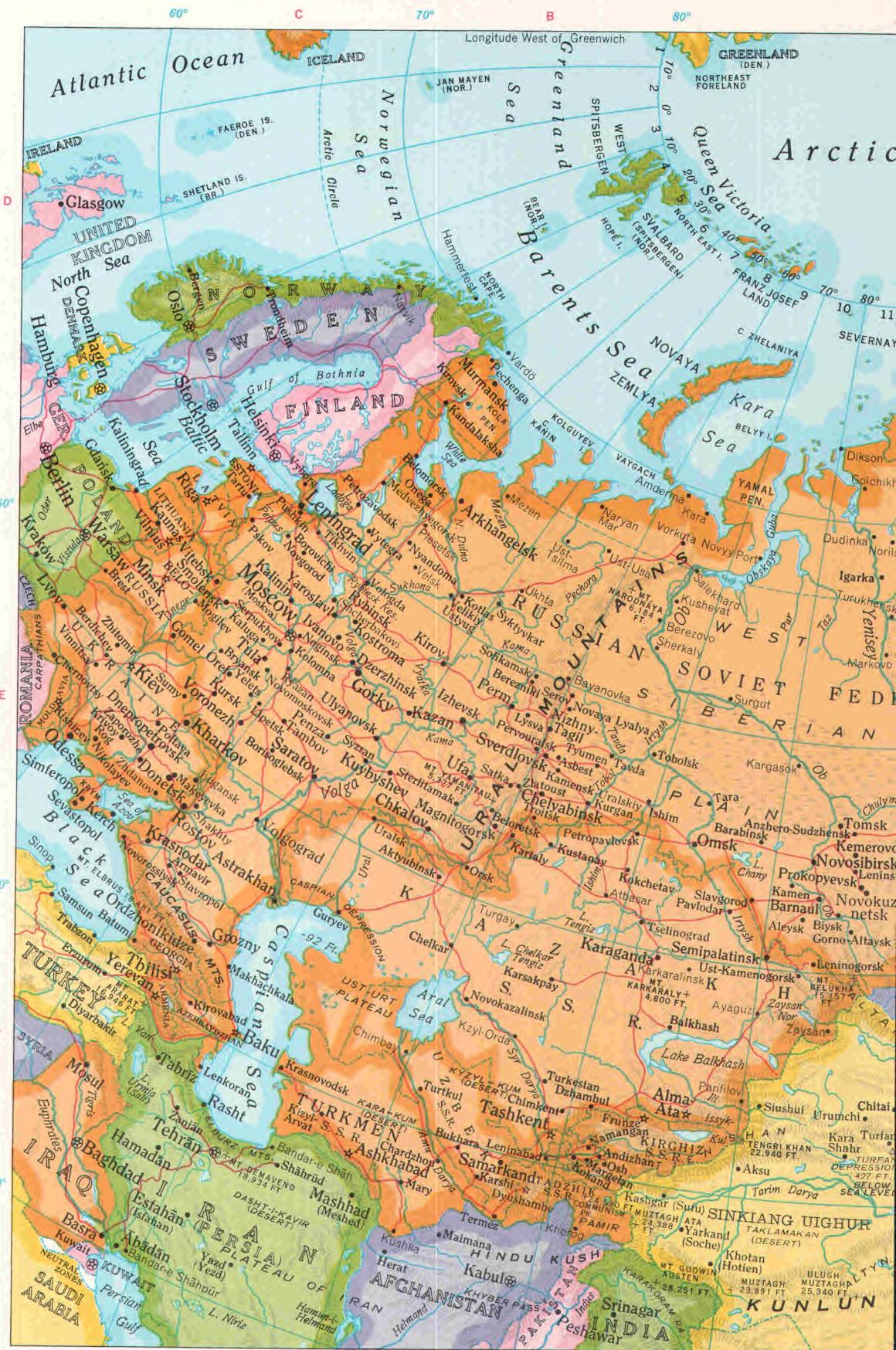
Physical Features

Aldan, plat.	D15
Anadyr, range	C20
Aral, sea	E 9
Azov, sea	E 6
Balkhash, lake	E10
Baltic, sea	D 4
Barents, sea	B 6
Baykal, lake	D13
Baykal, mts	D13
Belukha, mtn	E11
Bering, sea	D21
Black, sea	E 6
Caspian, depression	E 8
Caspian, sea	E 8
Caucasus, mts	E 7
Central Siberian, plateau	C13
Chelkar Tengiz, lake	E 9
Cherskiy, mts	C17
Communism, peak	F10
Dezhnev, cape	C21
Dnepr, riv.	D 6
East Siberian, sea	B18
Franz Josef Land, is.	B 8
Gydan, mts	C18
Kamchatka, pen.	D18
Kara, sea	B 9
Kara-Kum, desert	E 8
Kuril, is.	E18
Kyzyl-Kum, desert	E 9
Ladoga, lake	C 6
Laptev, sea	B15
Lena, riv.	C15
Lopatka, cape	D18
Novaya Zemlya, is.	B 8
Novosibirskiye (New Siberian), is.	B17
Ob, riv.	C 9
Obskaya, bay	C10
Okhotsk, sea	D17
Pirama, mtn	D12
Rybinsk, res.	D 6
Sakhalin, isl.	D17
Severnaya Zemlya, is.	B13
Shelekhov, gulf	C18
Tatar, strait	D17
Ural, mtns	D 8
Ust-Urt, plat.	E 8
Verkhoyansk, mts	C15
Volga, riv.	D 7
West Siberian, plain	C10
White, sea	C 6
Wrangel, isl.	B21
Yablonovy, mts	D14
Yaman, pen.	B 9
Yaman-Tau, mtn	D 8
Yenisey, riv.	C11

EASTERN SOVIET UNION

Principal Cities

Pop.—Thousands	
56	Abakan D12
39	Achinsk D12
10	Aksenovo-Zilovskoye D14
30	Aldan D15
39	Aleksandrovsk [Sakhalinsky] D17
10	Aleys D11
116	Anzhero-Sudzhensk D11
55	Artem E16
60	Asbest D 9
9	Ayan D16
39	Barabinsk D10
6	Barguzin D13
320	Barnaul D11
50	Belogorsk D15
41	Birobidzhan E16
146	Biysk D11
15	Bodaybo D14
688	Chelyabinsk D 9
123	Cheremkhovo D13
171	Chita D14





17	Dudinka	C11
27	Gorno-Altaysk	D11
34	Igarka	C11
78	Iman	E16
370	Irkutsk	D13
39	Ishim	D 9
23	Kachuga	D13
37	Kamen [-na-Obi]	D11
147	Kamenka-	
	Ural'skiy	D 9
74	Kansk	D12
277	Kemerovo	D11
3	Kezhma	D13
19	Khilok	D14
33	Kholmsk	E17
13	Kirensk	D13
177	Komsomolsk	
	[-na-Amure]	D16
44	Korsakov	E17
500	Krasnoyarsk	D12
145	Kurgan	D 9
22	Kyakhta	D13
34	Kyzyl	D12
132	Lensk-	
	Kuznetskiy	D11
19	Lesozavodsk	E16
62	Magadan	D18
45	Minusinsk	D12
18	Mogocha	D14
29	Nerchinsk	D14
40	Nikolayevsk	
	[-na-Amure]	D17
36	Nizhneudinsk	D12
338	Nizhnyi-Tagil	D 9
3	Nordvika	B14
108	Norilsk	C11
18	Novaya Lyalya	D 9
377	Novokuznetsk	D11
887	Novosibirsk	D11
15	Obluchye	E16
35	Okha	D17
2	Okhotsk	D17
6	Olekmansk	C15
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9	Serov	D 9
23	Shilka	D14
17	Shimanovsk	D15
26	Skorodino	D15
44	Slavgorod	D10
18	Slyudyanka	D13
10	Solovyeysk	D15
60	Sovetskaya Gavan	E16
29	Spassk-Dalniy	E16
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25	Sretensk	D14
47	Suchan	E16
4	Surgut	C10
777	Sverdlovsk	D 9
57	Svobodnyy	D15
20	Tara	D10
41	Tavda	D 9
29	Tayshet	D12
47	Tobolsk	D 9
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15	Zeya	D15
33	Zima	D13



The imposing Greater Caucasus, a 750-mile range stretching between the Black Sea and the Caspian Sea, divides the sprawling Caucasus region into Ciscaucasia on the north and Transcaucasia on the south. No railway has been built through the rugged mountain chain, although rail lines along both seacoasts connect northern industrial regions with the agricultural and mineral-rich republics of Georgia, Armenia and Azerbaydzhan to the south.

mountains have few passes and fifteen of the peaks soar higher than Mont Blanc in France (15,781 feet).

At the beginning of the Quaternary era, continental glaciation modified much of the surface of the U.S.S.R., as happened in other northern regions. As the ice moved southward it scoured elevations and plains, picking up soil and surface rock and carrying it southward. When the ice melted, this material was deposited. Drainage was changed; swamps, lakes and streams were formed; and soil and surface features were altered.

Climate

The climate of the U.S.S.R. is primarily determined by its huge size and continentality, and the location and direction of its relief features. The various climatic zones blend together, and changes from one to another are gradual. The climate of the U.S.S.R. is considerably different from that of western Europe, where there are strong oceanic in-

fluences and climate varies greatly from area to area.

In the U.S.S.R. the climate is continental and uniform. The uniformity is most striking. However, there are differences of temperature, pressure and precipitation.

THE SEASONS

In general, the winter is long and cold with temperatures almost always below freezing. Spring is virtually nonexistent. Summer is generally hot and autumn short-lived. In summer the temperatures increase regularly as one moves from north to south. On the Arctic Circle the July averages do not rise above 50° F. Along the middle Russo-Siberian strip they hover between 59° F. and 68° F. The southern areas from the Black Sea to Central Asia have temperatures of about 100° F.

During the winter, the temperature changes in a west to east direction. The farther east one travels, the more severe the climate. In the heart of Siberia, Verkhoyansk and

Oymyakon are the coldest cities in the Soviet Union. Their low temperatures average about 58° F. below zero but can drop to 90° F. below zero. The low temperatures of central Siberia give an illusion of warmth to European Russia where along the western border the temperatures are 23° F. The temperature of 32° F. in the regions of the Black and Caspian seas might, in comparison, be defined as warm.

Snow is an inseparable companion of the Russian winter. Although, in the winter, precipitation is slight, the intense cold freezes the snow and prevents melting. It covers the ground of the western and southern U.S.S.R. for three to four months. The central and eastern U.S.S.R. have ice for five months. The regions around the White Sea have ice for nine months, and extreme northern Siberia has ice for ten months of the year.

On the other hand, most of the U.S.S.R. is hot in the summer. The average July temperature in Moscow is 66° F. Even north of the Arctic Circle temperatures as high as 96° F. have been registered. The summer temperature of Irkutsk in south-central Siberia is the same as the summer temperature of any city in northern France. In summer, the

temperature in the south-eastern U.S.S.R. and the Turkmen S.S.R. in Central Asia may rise as high as 108° F.

A salient climatic characteristic is the abrupt change from summer to winter. September is a cold month in Siberia; in the European U.S.S.R., the first frost occurs at the end of October. In the same region, March is still a winter month.

The violent contrast between summer and winter temperature is dramatically illustrated by the annual range of temperature. In the western U.S.S.R. the annual temperature range is about 110° F. In eastern Siberia the average range of temperature is around 150° F., and in places may be as much as 180° F.

PRECIPITATION

In the U.S.S.R., precipitation decreases from west to east, and the maximum amount of precipitation falls in the summer. The least precipitation falls in the cold deserts of the north and the hot deserts of the Turan Lowlands. In these areas dryness limits vegetation.

There is 24 inches of rain at Smolensk, 21 inches at Moscow,

10 inches in the northeast and less than 6 inches in the steppes to the north of the Caspian. While the coast of the Crimea has a Mediterranean type of climate, the southern part of the Caucasus has an almost subtropical type of climate, with more than 95 inches of rain in the Batumi region. The areas with greatest precipitation are the sides of high mountains. Irkutsk in Eastern Siberia receives, in spring, from 4 to 10 inches of rain; but most precipitation falls during summer storms. In Siberia snow falls quite rarely and snowfall decreases as one moves eastward.

River Systems and Lakes

Some of the rivers of the U.S.S.R. flow into oceans and seas, others into interior basins and lakes. Many have fairly uniform characteristics. The rivers of the U.S.S.R. tend to be broad and muddy, and have a slight angle of flow. There are some rapids, but relatively few considering the number of rivers. Almost all the rivers have seasonal fluctuation. Most of them flood, and are frozen and ice-blocked for many months of the year.

The rivers that flow into oceans may be divided into three broad general groups: the Atlantic, the Arctic and the Pacific drainage systems. The Atlantic drainage area includes the Black Sea, Sea of Azov and the Baltic Sea.

The Dnestr, the Dnepr (often known in English as the Dneiper) and the Don are the major rivers that flow into the Black Sea and Sea of Azov. The Neva, Neman and Western Dvina, flow into the Baltic.

The Arctic drainage basin includes the Northern Dvina, Pechora, Ob, Yenisey, Lena, Indigirka and Kolima.

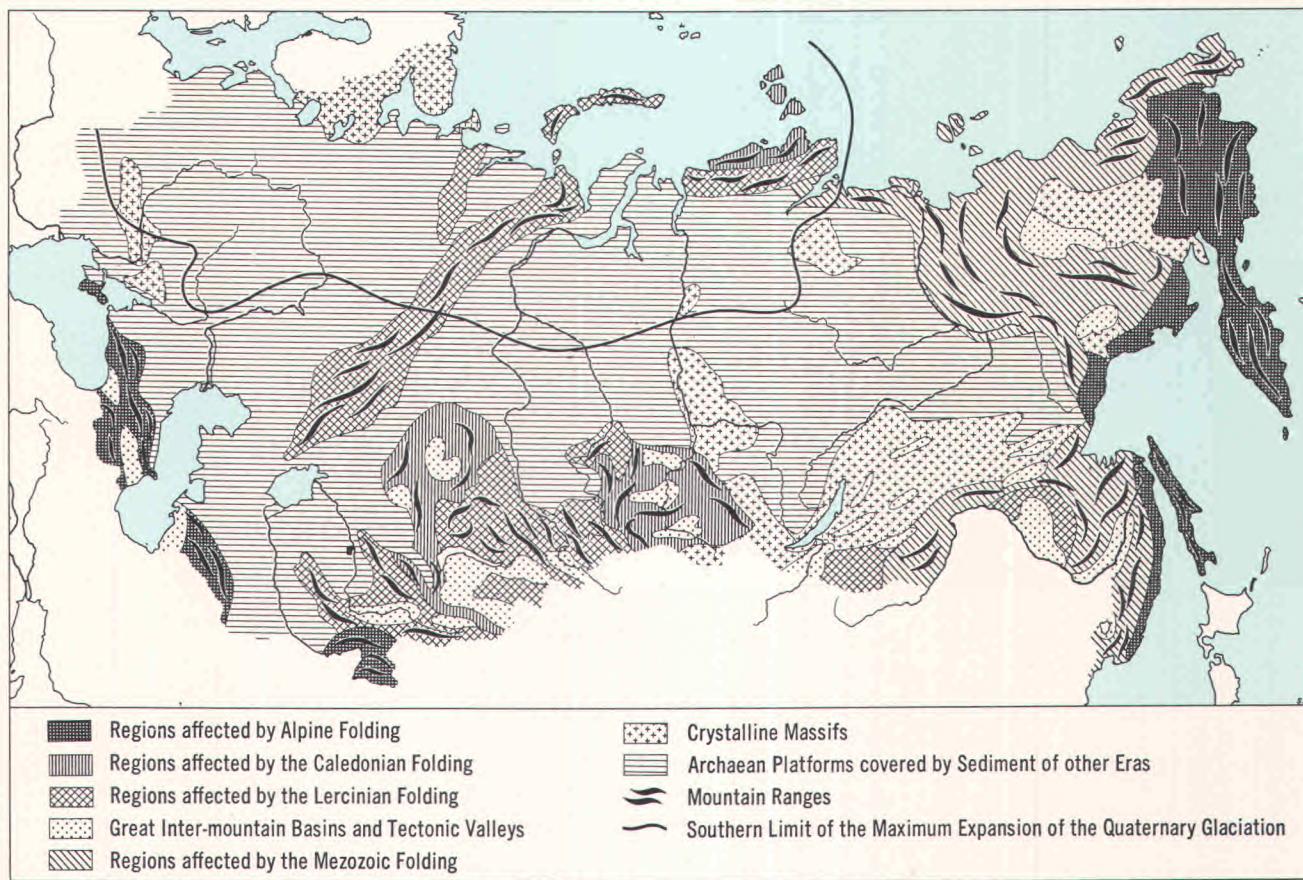
The Amur River is the most important in the Pacific drainage area.

Many important rivers such as the Volga, the Ural, the Syr Darya and the Amu Darya have interior drainage.

In Central Asia, the rivers flow from mountains into interior basins and disappear. These rivers form a large centripetal system.

In the European U.S.S.R., the rivers flow outward from interior watersheds toward the coasts and form a centrifugal system.

Geological Formations



Because of the huge size of the U.S.S.R., and the different locations of the rivers and the different sources of water, the flood season varies considerably. Many are in flood during the spring thaw, and low during the summer, but those rivers that are fed by glaciers have their flood season in the summer when the ice melts faster.

EUROPEAN RIVERS

The Volga, a river of the plain, has a typically continental rate of flow. The average flow at Kuybyshev in the eastern European U.S.S.R. is 276,000 cubic feet per second, but

there are enormous differences between its minimum and maximum flow. The minimum occurs in winter: December has 115,000 cubic feet per second, February has 96,000 cubic feet per second. At the first spring thaw the water starts to rise, slowly but inexorably, as the snow and ice melt. In April, at Kuybyshev, the Volga carries 282,000 cubic feet per second and in May that figure rises to 1,000,000.

During high water almost all the rivers of the European U.S.S.R. overflow, causing floods, some of which are partially controlled by artificial basins. The northward-

Moscow's Red Square. The massive monument in the foreground is the tomb of Lenin (and formerly, also, of Stalin). Long lines of visitors, as shown here, queue up daily to view the embalmed body of the Soviet leader. It is from the balcony of the mausoleum that Soviet dignitaries and their special guests review the May Day and November 7th parades and other important celebrations.

flowing rivers thaw in their upper and middle sections, while their lower course is still frozen and the mouth blocked by ice. This causes severe flooding.

SIBERIAN RIVERS

With the exception of the Amur, Siberian rivers are high in the summer months and low from December to April. The Ob, the westernmost of the main Siberian rivers, has headwater streams in the mountains, but flows through most of its course on the plain. This fact accounts for the river's high water in summer.

The Yenisey, to the east of the Ob, has a large drainage basin of 1,050,000 square miles and the river has an average annual flow of 615,000 cubic feet per second. Low water comes in the winter in December with 161,000 cubic feet per second. The river flows slowly over the plateaus of central Siberia, and there is little evaporation.

The Lena, still farther east, has a varied rate of flow with low waters in winter through April. There is an almost sudden rush of water in May. June is the flood month with 2,200,000 cubic feet per second.

CAUCASIAN RIVERS

A number of short rivers, the most important of which is the Rion, rise in the greater Caucasus Range and are fed by melting snows and mountain streams. The two longest rivers of the Caucasus—the Kura and the Araks—rise in Turkey. Both are noted for their rapid currents.

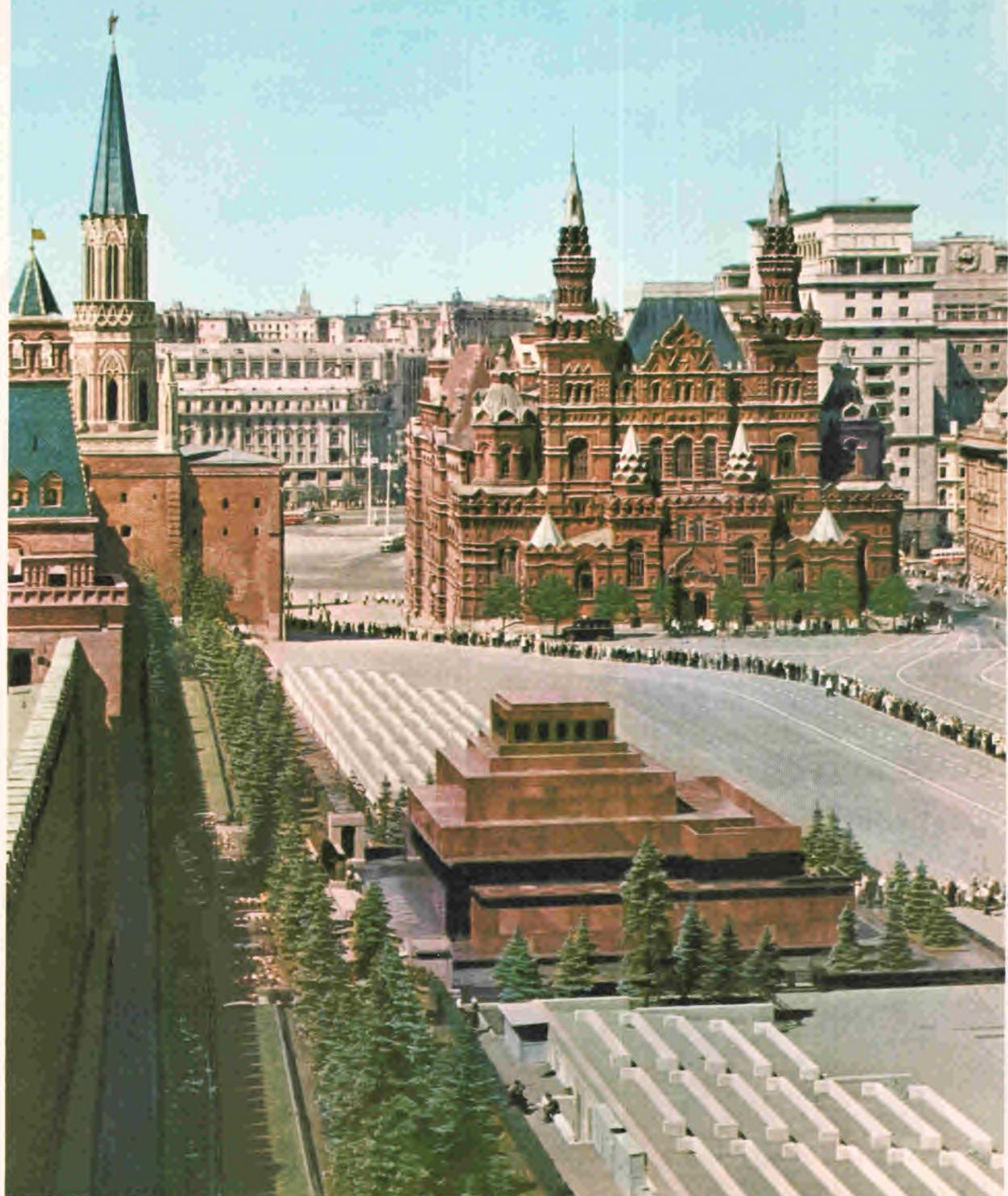
CENTRAL ASIAN RIVERS

The rivers of Central Asia, such as the Amu Darya and Syr Darya have a particularly low rate of flow. They are fed by waters from the glaciers and snows of the high mountains. In summer they lose part of their water by evaporation, and considerable water is drawn off for irrigation in the Turan Lowland.

These rivers carry less water in their middle and lower sections than they do in their upper sections: the



To publicize their scientific and economic advances, the Russians have established the gargantuan "Exhibition of Economic Achievements," the ornate entrance to which is shown here. Covering more than 500 acres on the northern outskirts of Moscow, this permanent and lavish showcase contains separate pavilions—each constructed in a characteristic architectural style—for every one of the fifteen republics of the U.S.S.R.



Amu Darya, for example, carries 155,000 cubic feet per second in July at Kerki and, at the same time, downstream at Nukus, it only carries 110,000 cubic feet per second.

LAKES

The U.S.S.R. has thousands of lakes. If one considers the landlocked 152,000-square-mile Caspian Sea a lake, then it would be the world's largest; Lake Superior in the United

States would be second, and the inland Aral Sea (26,500 square miles) is the third largest.

The Caspian Sea and the Aral Sea are salty; because they are located in arid, warm regions the evaporation rate is high and they are rapidly becoming smaller. The Soviet government has been considering a project to change the course of the Ob River so it will empty into the Aral Sea and then flow from the

Aral into the Caspian Sea.

Most of the U.S.S.R.'s lakes are found in the cool, humid, glaciated section of the northwest. In this region, as in neighboring Finland and in Siberia, glacial scour, deposition and drainage changes formed many lakes. Lake Ladoga (7000 square miles) and Lake Onega (about 3800 square miles) are the two largest in Europe; on the Kola Peninsula, adjoining Finland, there are thou-



Delegates from the far-flung regions of the U.S.S.R. attend a meeting of the Supreme Soviet at the mammoth Sports Palace in Moscow.

European U.S.S.R. and Siberia.

It extends as far south as 65°-70° N. latitude. The tundra is thoroughly frozen for most of the year, but in the summer the upper layers thaw and the region becomes cold, wet and marshy. The precipitation is low, wind velocity is high, the temperatures are cold and the drainage is poor. In this inhospitable climate, low plants—such as mosses and lichen—and a few low bushes—such as myrtle and juniper—grow. Rare dwarf trees—such as the Arctic willow and dwarf spruce and birch—also grow in this monotonous and depressing region. In the short summer the tundra has many flowers, among them are myosotis, buttercups, saxifrage, poppies, and cineraria.

The transitional zone between the herbaceous tundra to the north and the forests to the south is the woody tundra. Here increasingly numerous thickets are accompanied by some coniferous trees, such as Scotch pine, hardy spruce and Siberian larch.

PODSOL SOILS AND TAIGA

South of the tundra lies the region of grayish or ash-colored, infertile, poorly drained, acid soils called the podsols. They vary in structure from coarse-grained to powdery and, in places, are covered with humus. They are cold, wet soils, and peat is common. These soils support the great northern coniferous forests, the taiga. About 40 per cent of the U.S.S.R. is in this zone. The taiga is most extensive in the Asiatic U.S.S.R. It is a monotonous, dismal and silent region. The trees are close together and are poor specimens. The most common trees are spruce (*Picea excelsa* and *Picea obovata*), Siberian larch (*Larix sibirica*) and pines (*Scotch pine*, *Pinus sylvestris* and *Pinus sibirica*).

In European Russia, deciduous forests predominate. They are more open and are interspersed with farmland. These forests have beautiful specimens of oak, ash, elm and maple. In southeastern Siberia the forests have many oriental species such as Mongolian oak (*Quercus mongolica*), Manchurian ash (*Fraxinus mandshurica*) and Amurian linden (*Tilia amurensis*).

sands of small lakes. Some of these lakes are joined by small rivers and canals, forming an inland waterway from the Baltic to the White Sea.

In the Asiatic U.S.S.R., along the edge of the great mountain ranges, there are lakes of tectonic origin (that is, formed by faulting of the earth's crust). They are long, narrow and often very deep. One of these is Lake Baykal, not only the largest in Eurasia (12,150 square miles), but the deepest lake in the world as well (over 5700 feet deep). An enormous number of little ephemeral lakes which dry up in the hot season are scattered over southwestern Siberia and the Kazakh S.S.R. to the south. There are also many artificial lakes in the U.S.S.R. These lake basins regulate the outflow of the water, feed hydroelectric plants, and supply water for irrigation. Their surface area varies from 390 to 2300 square miles. Most of these artificial lakes are on the Volga, Dnepr, Don, Ob and the Yenisey rivers.

Soils and Vegetation

On the uniform Russo-Siberian plain, soils are an important element in geographic differentiation. There are three main categories into which the soil types found in the U.S.S.R. fall: soils of glacial origin which occur in most of the northern regions; loessic, or wind deposited soils, in the central and southern part; and marine sediments in the great basins now surrounding the Caspian and Aral seas.

Over the long period of time since their origin, these soils have been altered by weather and climate, natural vegetation, microorganisms, man, animals and chemical processes.

Soil and plant zones are closely related. The principal soil-vegetation zones of the U.S.S.R., from north to south, are as follows:

THE TUNDRA REGION

The tundra is located just south of the Arctic ice fields and extends in a broad swath across the northern

BLACK-EARTH SOILS AND STEPPES

South of the great forests are the fertile black-earth (*chernozem*) soils of the plains and grasslands in the southern and eastern U.S.S.R.

The word "steppe" generally designates all the non-wooded but level regions. These are primarily plains and grasslands. South of the forest is a transitional zone called the wooded steppe. Here there are scattered trees and strips of gray and black soil. The trees eventually disappear completely and grasses predominate. Also found here are many tall-growing herbs and, in the spring, bulbous plants.

The black-earth soil, which has a unique structure and color, is formed from the decomposition of grasses. This soil is ideal for wheat and other grains and is a valuable natural resource.

SANDY, ALKALINE SOILS AND DESERT SCRUB

The deserts or semi-deserts of the southeastern U.S.S.R. and south-central Siberia have a dry, sandy

soil. The sparse vegetation is composed of drought-resistant plants. These soils may be cultivated only when heavily irrigated and fertilized.

Along the coasts of the Black, Caspian and Aral seas are found halophytic plants (those which grow naturally in soils heavily impregnated with salt).

Fauna

In a large part of the U.S.S.R. there are numerous fur-bearing animals such as ermine, otter, marten, squirrel, wolf and bear. Sable is now rare and found mainly in parts of Eastern Siberia. Conservation techniques and fur farming are now being employed to prevent the extinction of these fur bearers.

There are numerous hoofed and horned animals, such as reindeer, elk, roebuck and the yellow-rumped

deer, throughout the U.S.S.R. The reindeer which inhabit the tundra, are valuable for food and for their hides; they are the mainstay of life for the Lapps.

In the eastern and the southeastern regions, species from neighboring Manchuria may be found. Tigers still exist in the Amur Basin, and a few have been seen in the Yakutsk area. They are also found in Central Asia.

The north Pacific has an extraordinary abundance of dolphins, seals, sea lions and whales, as well as many valuable fish and shellfish.

The U.S.S.R. has numerous species of fish, such as pike, carp, trout and sturgeon, as well as salmon (which are both fresh and salt water fish). Sturgeon roe (caviar), probably the best-known Russian fish product, is exported all over the world.

Moscow University's main building, a thirty-two story skyscraper completed in 1953, is only one of nearly forty structures housing the institution's facilities. This building contains administrative offices, several academic departments, a library, an auditorium, a swimming pool, a geological museum and a number of student dormitories. Students reside in closet-size rooms measuring nine by five feet. The University, founded by the Empress Elizabeth in 1755, is the oldest in Russia.



ORGANIZATION OF THE STATE

Republics and Administrative Divisions

The constitution of 1936 describes the Union of Soviet Socialist Republics as a federal state. In order of size of population, the fifteen Soviet socialist republics, or union republics, are the Russian Soviet Federated Socialist Republic (R.S.F.S.R.) and the Ukrainian, Belorussian, Kazakh, Uzbek, Georgian, Azerbaijani, Lithuanian, Moldavian, Latvian, Kirghiz, Tadzhik, Armenian, Turkmen and Estonian Soviet Socialist Republics. The name of each republic represents the nationality of a large body of its citizens.

Many ethnic minorities within the

union republics have their own national units, each with a degree of self-government. These units, in order of importance, are (1) Autonomous Soviet Socialist Republics, (2) autonomous regions and (3) national areas. The major administrative subdivisions of the union republics are regions (*oblasts*) and territories (*krays*), which are further divided into districts (*rayons*), cities and rural communities.

The Communist Party

The Soviet Union has a totalitarian form of government. In the U.S.S.R. (and indeed in all Communist states) this means that the state is controlled by one political party, in this case the Communist Party of the Soviet Union (C.P.S.U.). The familiar phrase "dictatorship of the proletariat" means, in effect, dictatorship of the C.P.S.U.

The Party claims to represent the interests of all the workers: proletarians, peasants and even intelligentsia of the Soviet Union and to be guided by the principles of Marxism-Leninism. It is truly, as the Communists themselves describe it, "the directing and guiding force of Soviet society and of the Soviet state." The highest officials of the state are drawn from the highest ranks of the Party.

According to the rules adopted at the Nineteenth Congress of the C.P.S.U. in 1952, any working person may join the Party if he does not "exploit the labor of others, if he accepts the Party program and rules, if he actively takes part in the execution of the Party program and if he works in a Party organization and carries out all Party decisions." At the Twenty-Second Congress of the C.P.S.U. in 1961, it was reported that there were 8.9 million full members and 843,489 candidates—a membership of 9.7 million in all. The members of the Party include virtually all of the leading figures in government, busi-

The Belorussian station in Moscow continually swallows and disgorges travelers and tourists bound to and from the western Soviet Union. Moscow serves as the nerve center for a huge railway network connecting Russia's far-flung regions. Despite continued development of rail communications, however, much of the U.S.S.R.—including the enormous Siberian north—cannot be reached by train.



A small crowd of Old Believers gathers in front of a church in Moscow. Although religious worship is not actually prohibited in the Soviet Union, it is definitely not encouraged. The worshippers at most services are apt to belong to the older generations.

ness, education and (with some exceptions) the arts.

ORGANIZATION OF THE PARTY

The organization of the C.P.S.U. is pyramidal. At almost every level, where there is an official state organization, there is a parallel Party organization, with the state and Party pyramids merging at the top in the same persons. The other side of the coin of Communist Party pyramidal structure is the "front" of mass membership.

The lowest Party organizations, the primary units (formerly known as cells), are normally established in factories, state farms, collective farms, villages, institutions, units of the army and navy, educational centers and similar places. There must be at least three Party members in each primary unit, but there may be several thousand (as in the case, say, of the Party organization of a large factory). Party units beyond the primary level generally parallel the administrative subdivisions of the state, with separate Party organizations for each city, district, region, territory and union republic (except the R.S.F.S.R., which is run by the central Party organs). Theoretically, at least, the primary unit functions to give its members a feeling of identification with, and participation in, the regime. Through discussion and criticism, the primary unit does not influence the decision-makers; but it is a means of access to them.

Elections throughout the Party pyramid are indirect because each Party unit elects delegates to the next higher unit. At each level, members are supposed to hold conferences, or congresses, periodically. In theory, the All-Union Congress of the entire C.P.S.U. is the supreme organ of the Party. In practice, however, certain smaller administrative bodies "elected" *pro forma* by the Congress actually wield the power.

The All-Union Congress of the C.P.S.U. is required to meet "not less often than once every four years." Party rules require the Congress to elect both a Central Auditing Commission and a Central Committee. The Central Auditing Commission, which is of minor impor-

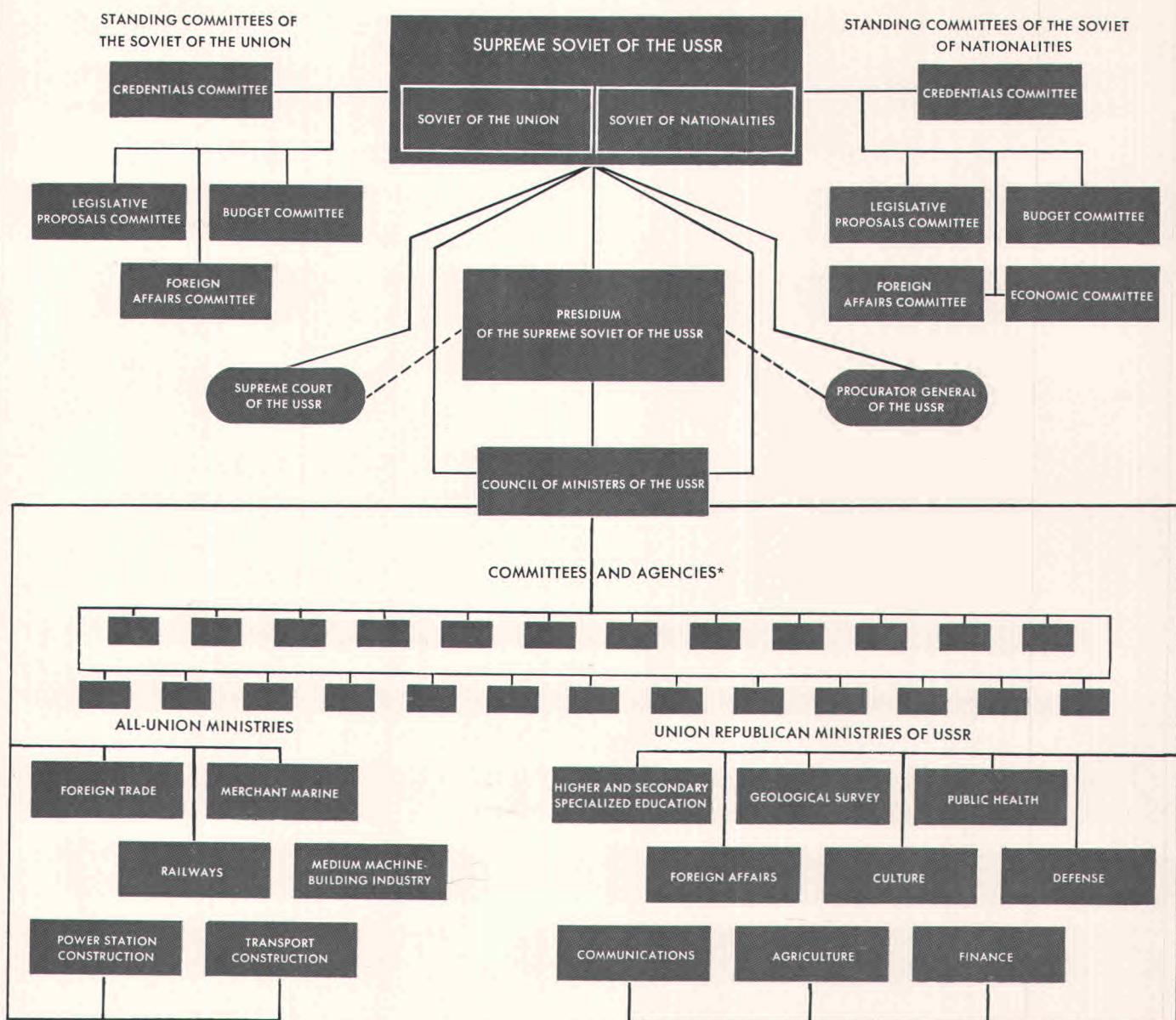


tance, regulates certain routine affairs and keeps track of Party finances. It has little, if any, authority of its own.

Far more significant is the Central Committee which, *in theory*, represents the interests of the Congress as a whole and, during the intervals between congresses, directs the entire work of the Party. At the Twenty-

Second Congress of the C.P.S.U. (October 1961), 175 delegates and 155 candidates were elected to the Central Committee. The Central Committee, however, while it is a base for power, does not itself wield more than a meager portion of that power. Actual control is vested in the still-smaller units elected by and from its membership.

HIGHER ORGANS OF STATE POWER AND ORGANS OF STATE ADMINISTRATION OF THE USSR



*The number and nomenclature of committees and agencies under the Council of Ministers changes at irregular intervals. In 1962 the following were listed: State Planning Committee of the Council of Ministers of the USSR (GOSPLAN); State Committee for Labor and Wages of the Council of Ministers of the USSR; State Research Coordination Committee of the Council of Ministers of the USSR; State Committee on Professional-Technical Education of the Council of Ministers of the USSR; State Committee for Radio and Television Broadcasting of the Council of Ministers of the USSR; State Committee for Automation and Machine Building of the Council of Ministers of the USSR; State Committee for Aviation Technology of the Council of Ministers of the USSR; State Committee for Defense Technology of the Council of Ministers of the USSR; State Committee for Radioelectronics of the Council of Ministers of the USSR; State Committee for Electronic Technology of the Council of Ministers of the USSR; State Committee for Shipbuilding of the Council of Ministers of the USSR; State Committee for Chemistry of the Council of Ministers of the USSR; State Committee for Ferrous and Nonferrous Metals Industry.

of the Council of Ministers of the USSR; State Committee for Fuel Industry of the Council of Ministers of the USSR; State Committee for Timber, Paper and Pulp, Woodworking Industry and Forestry of the Council of Ministers of the USSR; State Committee for Use of Atomic Energy of the Council of Ministers of the USSR; State Committee for Construction of the Council of Ministers of the USSR; State Committee for Farm Produce Purchases of the Council of Ministers of the USSR; State Committee for Foreign Economic Relations of the Council of Ministers of the USSR; State Committee for Cultural Relations with Foreign Countries of the Council of Ministers of the USSR; Committee of State Security under the Council of Ministers of the USSR; All-Union Board for Sale of Agricultural Machinery, Spare Parts, Mineral Fertilizer and Other Production and Technical Supplies, and the Organization of Machinery Maintenance and Service on State and Collective Farms; Board of State Bank of the USSR; Central Statistical Board under the Council of Ministers of the USSR; State Council on Economic Research of the Council of Ministers of the USSR.



A choir of women in native costume in Padany, a village in the Karelian A.S.S.R., which borders Finland. The inhabitants of this region are largely of native Karelian and Finnish stock. Only about 25 per cent of the people in Karelia are of Russian origin, and most of these have settled there since 1940.

Soviet Government. Created in 1952 shortly before Stalin's death, the Presidium took over the functions of the old Politburo (Political Bureau) and Orgburo (Organizational Bureau). During the early 1960s it consisted of twelve members and six alternates. All members of the Presidium hold key positions in the Party and/or government. Several of its members invariably belong to the Secretariat.

The Secretariat of the Central Committee is charged with a wide range of duties, and bears central responsibility for controlling the activities of the Party apparatus. It also prepares the agenda for the Presidium and provides much of the information on which the Presidium bases its decisions. The number of secretaries fluctuates, each secretary being responsible for Party control over some major area of Soviet life (agriculture, industry, education, propaganda, and so on).

Overseeing the activities of the Secretariat is the First Secretary, who is elected by the Central Committee. Because the First Secretary directs the day-to-day functions of the Party and is in close touch with the whole Party apparatus, he is

theory and practice, secrecy in the upper echelons of power and the fact that the same person may occupy two or more positions, it is exceedingly difficult to determine exactly where the functions of the Secretariat leave off and those of the Presidium begin.

Generally speaking, the Presidium is the supreme policy-making organ of the C.P.S.U. and, hence, of the

In theory, the Central Committee elects a Secretariat, a Presidium (not to be confused with the Presidium of the Supreme Soviet) and a Party Commission. The last of these, established in its present form in November 1962 as a successor to the old Party Control Committee, is chiefly concerned with Party discipline and related matters.

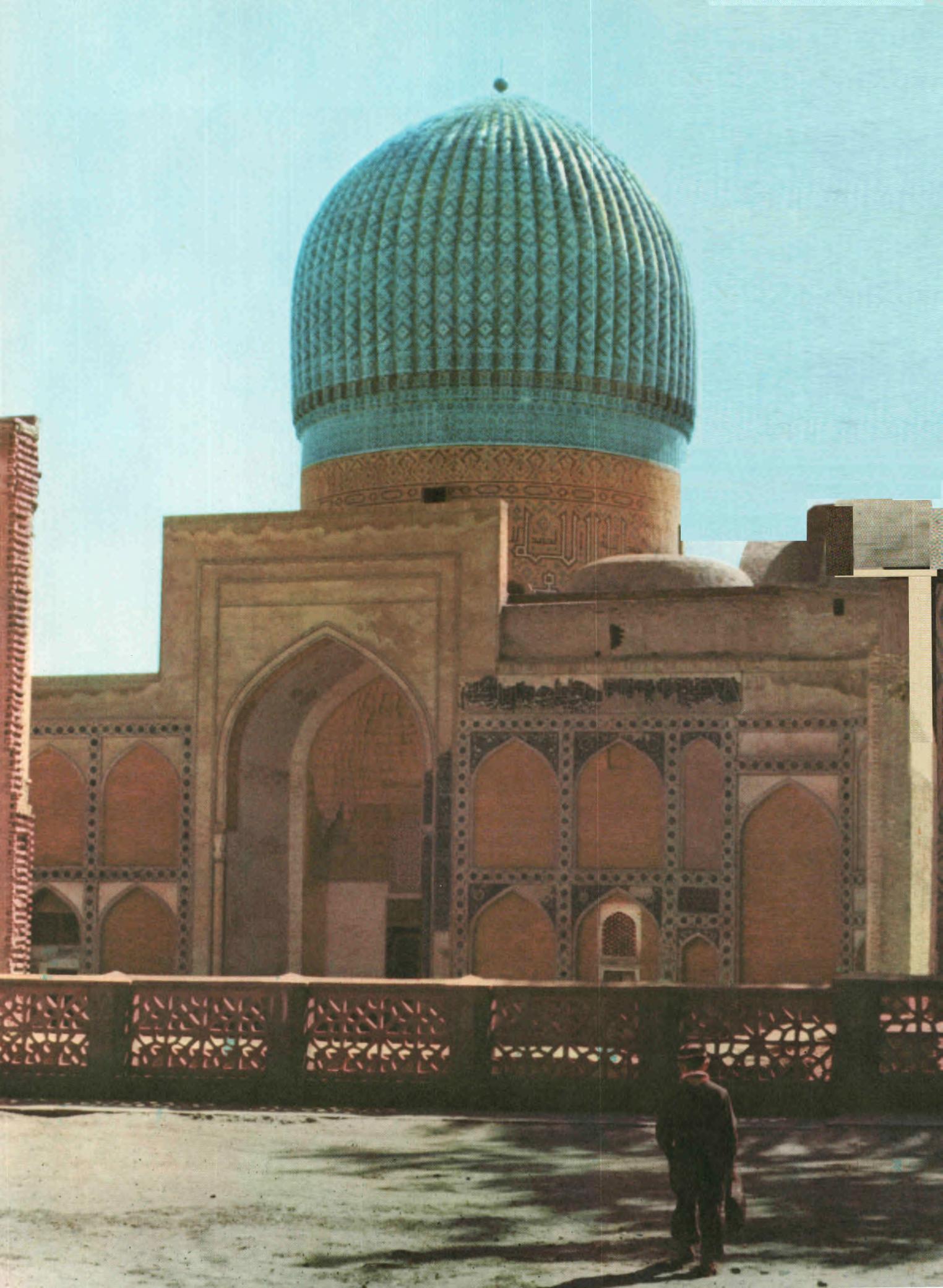
In practice, the Secretariat and the Presidium are not elected. The Presidium is a self-perpetuating body that chooses its own new members; the membership of the Secretariat is also predetermined by the C.P.S.U. hierarchy.

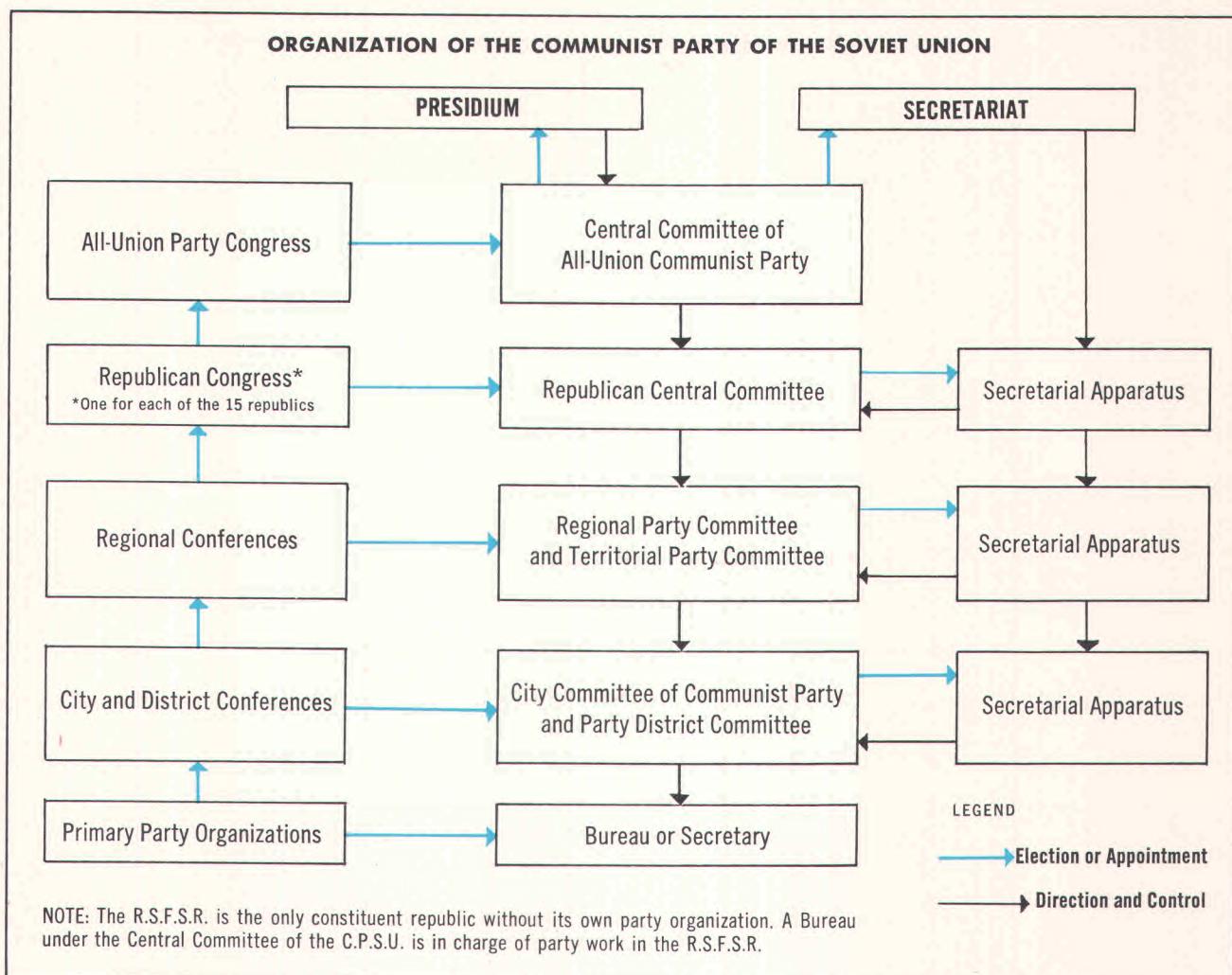
THE APEX OF POWER

With the Secretariat and the Presidium we come to the controlling organs of the Party and the apex of power in the U.S.S.R. Members of the Presidium and the Secretariat dominate both the Party and the state. Due to discrepancies between

A group of high school graduates exchange congratulations in Riga, capital of the Latvian S.S.R. As in all the Soviet Union, secondary schools are open to all, and are mostly well-equipped. Riga, founded in the early 12th century, is today an important modern seaport on the Baltic and the cultural center of Latvia.







ideally situated to become the most powerful man in the Soviet Union. Stalin became dictator largely through his tenure in this post, and it has been held by Nikita Khrushchev (who is also the chief member of the Presidium) since September 1953.

The Framework of the Government

In an important sense, the Constitution of the Soviet Union serves as a guide to the understanding of the Russian state and society as a whole. A basic conflict arises from the two main Communist aims: the providing of the attributes and benefits of a socialist state for the workers in the present; and the striving toward world-wide

Communist domination in the future. Thus the constitution as the voice of government must pay lip service to such democratic institutions as elections, representation, etc., while it must allow leeway for the government, in practice, to ignore any democratic principles that would hamper its expansion.

In this sense, too, may be understood the guiding structural principle of "democratic centralism." Theoretically, decisions of the Party and the government are preceded by free discussion. In fact, any criticism which hampers unity of action is inadmissible. The key word is not the adjective, democratic, but the noun, centralism.

According to the constitution approved by the Eighth Congress of Soviets of the U.S.S.R. on Dec 5, 1936, the Union of Soviet Socialist Republics is a "Socialist" state of workers and peasants. Power is exercised, again according to the constitution, through the Soviets of Workers' Deputies; these were set up after the establishment of the so-called

dictatorship of the proletariat (the October Revolution, 1917). The dictatorship of the people operates in two fields, economic and political.

The economic basis of the U.S.S.R. is a Socialist economic system and the Socialist ownership of the means of production. Socialist ownership may either take the form of outright state ownership, as in the case of most industrial plants, or of collective or cooperative ownership, as in the case of the collective farms (*kolkhozes*).

State property includes the land, subsoil, waters, forests, mines, rail, air and water transportation, banks, radio and television stations and newspapers. State farms (*sovkhозes*), public works, city dwellings and industrial centers are also state property. On the *kolkhoz*, the livestock, farm equipment, produce and buildings are owned collectively. However, each family belonging to the *kolkhoz* may also lease a small piece of land, a house, livestock, farm animals and agricultural equipment.

The tomb of the Oriental conqueror, Tamerlane, with its remarkable blue dome, is one of the Moslem architectural glories of Samarkand, which was the capital of Tamerlane's 14th-century Mongolian empire. Today Samarkand lies in the Uzbek S.S.R., and reflects the cultures of both Central Asia and modern Russia.

Limited private property rights, savings, and the right to inherit personal property are guaranteed by the constitution. Although the constitution permits farmers and handcraftsmen to operate independently, providing they do not hire helpers, they are encouraged to join the state-owned factories or the collective farms.

Economic life is planned and directed by the central government. Work is considered an honor and a duty of every citizen. The constitution states that "he who does not work does not eat," and embraces the principle: "From each according to his capacity, to each according to his work."

THE CENTRAL GOVERNMENT

The constitution gives the central government a wide range of authority. In its province are included: international affairs, the making and breaking of treaties, declaration of war and the making of peace, admission of new republics, control

over the observance of the constitution, approval of border modifications, formation of new autonomous territories, regions and republics, foreign trade, defense and the safety of the state, national economic policies, the state budget and taxes, banks, industrial and commercial concerns and agricultural affairs, transportation and communication, the monetary and credit system, state insurance, loans, the use of the land and exploitation of the subsoil, forests and waters, public health and education, the organization of a system of national statistical services, labor legislation, judicial organization, civil and penal codes, laws governing citizenship and the rights of foreigners, matrimonial and family legislation, and the granting of pardons.

THE SUPREME SOVIET

According to the constitution, the highest level of state authority in the Soviet Union is the Supreme Soviet of the U.S.S.R., which exer-

cises all the rights of the Union not given to its subordinate bodies. In practice, as is the case with all Soviet institutions, the larger the administrative body, the less its effective authority. In fact, it is the so-called "subordinate" bodies, in particular the Council of Ministers and the Presidium of the Supreme Soviet, that wield the most power.

Members of the Supreme Soviet are elected every four years by universal, direct, secret and equal suffrage, by citizens over 18. By Western standards these voters have little choice for each seat in the Supreme Soviet. Candidates are selected jointly by official organizations—such as social and workers' groups, youth movements, cultural associations and the Red Army—and local C.P.S.U. organs. They present a single slate of candidates for the voters to approve. Though the constitution permits competition for seats, in fact there is always only one candidate. One can vote NO only by crossing out that one name.

The Supreme Soviet is composed of two chambers: the Soviet (or Council) of the Union and the Soviet (or Council) of the Nation-

Lovely stands of fir and birch woods are a feature of the softly undulating countryside around Moscow. The simple yet grandiose nature of the landscape has often been celebrated by Russian poets and painters.



The Irtysh near Omsk, in western Siberia. This 1844-mile-long river rises in the Altay Mountains in China, flows northwest to enter Soviet territory, then crosses the Kazakhstan steppes and the low plain of Western Siberia to join the Ob near Khanty-Mansiysk.

alities. The Soviet of the Union has proportional representation, with one deputy for every 300,000 inhabitants. In 1958 there were 738 members. The membership of the Soviet of the Nationalities is based on national divisions. There are 25 deputies for every union republic, 11 deputies for every autonomous republic, 5 deputies for every autonomous region and one deputy for every national area. In 1958 there were 640 members. The two chambers have equal rights in the initiation and enactment of legislation.

LEGISLATIVE POWERS

The laws approved by the Supreme Soviet may be proposed by either chamber. In case of disagreement between the two chambers, which has never happened, the law in question would be submitted to a conciliation commission composed of an equal number of members from each chamber. A law to modify the constitution must gain the approval of two thirds of the deputies of both chambers.

The Supreme Soviet elects its Presidium and, in theory, appoints the Council of Ministers of the U.S.S.R. Both bodies are in theory subordinate to its authority. In practice, however, most laws in the Soviet Union are issued as edicts or decrees of the Presidium or of the Council of Ministers and approved afterwards by the Supreme Soviet.

THE PRESIDIUM OF THE SUPREME SOVIET

The Presidium in 1963 was composed of a chairman, 15 vice-chairmen (one for each union republic), one secretary and 15 other members. As titular head of state, the chairman of the Presidium represents the U.S.S.R. on ceremonial occasions. In 1963 the chairman of the Presidium was Leonid I. Brezhnev.

The Presidium convenes the sessions of the Supreme Soviet, issues decrees subject to the ratification of the Supreme Soviet, interprets laws, may dissolve the Supreme Soviet and call for new elections, may call for a referendum and repeals the ordinances and dispositions of the



central and regional Councils of Ministers, if they do not conform to the laws. The Presidium also institutes and confers decorations and honors, grants pardons, establishes the military and diplomatic hierarchies and may order general or partial mobilization. It may ratify or denounce international treaties, accredit and receive diplomatic representatives and proclaim martial law.

COUNCIL OF MINISTERS OF THE U.S.S.R.

The directing executive and administrative body of the state is the

Council of Ministers (formerly the Council of People's Commissars), composed of 7 vice-chairmen, the Premiers of the 15 Union Republics, the head of the Central Statistical Department, the chairman of the State Bank, the Capital Investment Bank and the Commission of Soviet Control, the chairmen of 18 other state committees, 15 Ministers, 5 members of the State Planning Committee and 7 others of ministerial rank. The chairman of the Council and the 3 first vice-chairmen form the Presidium of the Council of Ministers.

In practice, the Soviet Union is

governed by the Council of Ministers, and the members of this body are drawn from the highest ranks of the C.P.S.U. The chairman of the Council of Ministers is referred to, outside of the U.S.S.R., as the Russian (or Soviet) premier or Prime Minister, because he functions in practice as the chief executive of the U.S.S.R. That post was held by Lenin and Stalin and has been held by Nikita Khrushchev since 1953.

The Council of Ministers coordinates and directs the work of the ministries and other institutions which are subordinate to it. It is responsible for carrying out the national economic plans and the state budgets, maintaining the stability of the monetary and credit system; ensuring public order, defending the interests of the state and safeguarding the rights of citizens. It formulates policy for international relations. It calls up the annual contingents for compul-

sory military service and directs the organization of the armed forces. When necessary, it sets up special committees regarding economic, cultural and defensive matters. In carrying out its duties, the Council of Ministers issues decrees and ordinances ensuring enforcement of laws throughout the Soviet Union.

GOVERNMENT OF THE REPUBLICS

Although federal in outward form, the government of the U.S.S.R. is not federal in practice, at least as that term is used in the Western world. Under the constitution, the central government and its ministries determine and execute basic policy throughout the land and may annul pertinent decisions of the union republics. With the consent of the central government, a union republic can have its own diplomatic representatives and can make agreements with foreign states. Each union republic has

its own constitution, based upon that of the U.S.S.R., and the right to exercise its own authority autonomously, always provided that it does not clash with the decisions of the central government.

The union and autonomous republics have administrative institutions similar to those of the central government. Each republic has a one-chamber Supreme Soviet, elected every four years, and a Council of Ministers. Most of the ministries of the union and autonomous republics are in practice local agencies of the central government.

In the administrative subdivisions of the republics (territories, regions, districts, cities and rural communities), the officers of state authority are deputies of the Soviets, elected every two years by the workers of every administrative unit.

The Soviets (Councils) of Workers' Deputies have many functions, such as directing the activities of the administrative bodies subordinate to them, assuring public order and observance of the law, guarding the rights of citizens, directing the economic and cultural organizations, and

An agricultural landscape in southern Karelia, between Lakes Onega and Ladoga in northwestern European Russia. Much of the region is covered by coniferous forests, the exploitation of which constitutes the region's chief economic resource. Once called "the country of unfrightened birds," because so few people lived there, Karelia is being transformed into a thriving agricultural and industrial region.



establishing the local budget. These activities are performed within the limits and rights granted to them by the laws of the U.S.S.R. and the union republics. The Soviets of Workers' Deputies nominate their own executive committees, and it is in these committees that most of the real power of the Soviets lies.

The Legal System

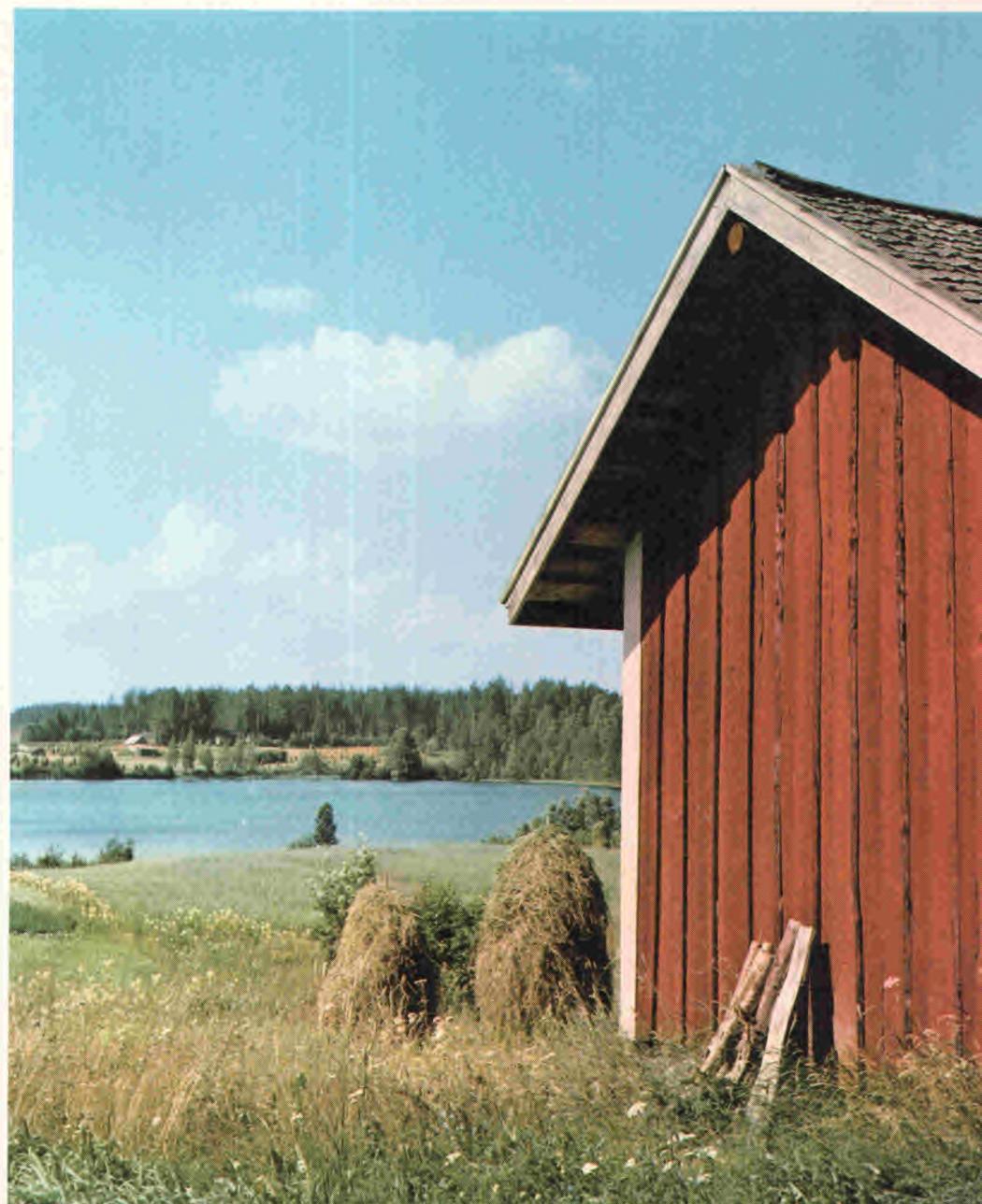
COURTS

Soviet justice is concerned with the protection of public institutions, state property, official political and social organizations, and the political, personal and property rights of the citizens. The basis of the judicial system is the same throughout the U.S.S.R., although each union republic has the right, in theory, to modify the system and introduce laws for the enforcement of civil, penal and labor codes.

The hierarchy of courts begins with the Supreme Court of the U.S.S.R. Next in importance are the supreme courts of the union republics. Then come the supreme courts of the autonomous republics and the territorial, regional and district courts. Below these are the people's tribunals. In addition, special courts may be set up by the Supreme Court of the U.S.S.R. All courts judge both civil and criminal cases.

The lowest courts, the people's tribunals, have special sections to deal with work disputes and handle all but the most important civil and criminal cases. A decision from a people's tribunal can be appealed to higher courts. The Supreme Court of the U.S.S.R. serves as the court of final appeal. It also is responsible for the activities of all judiciary bodies in the Soviet Union. Special chambers of the higher courts deal with offenses of the military and the public transport services.

Judges are elected either by the citizens or by their deputies in the Soviets. The people's tribunals are elected by the citizens within their jurisdiction, by secret ballot and universal suffrage, every three years. Territorial, regional and district courts are elected every five years by the respective Soviets of Workers' Deputies. The union republic and autonomous republic courts are elected every five years by the respective Supreme Soviet, and the Supreme Court and the Special Tribunals of the U.S.S.R. are elected every five years by the Supreme Soviet of the



A section of the southeastern shore of Lake Ladoga, near Finland. Ladoga is the largest lake in Europe. Fed by numerous tributaries, it sends its waters into the Gulf of Finland by way of the Neva, Leningrad's river. During the siege of Leningrad in World War II, the Russians built a railroad across the frozen lake to bring supplies into the city in winter.

U.S.S.R. Besides the official judges in every type of court, people's municipal magistrates are elected every two years.

Since Stalin's death, there has been an ambivalence in court reforms: on the one hand, liberalization and standardization of justice for all; on the other, resort to capital punishment for many crimes, to exile and to quasi-judicial agencies such as people's police and comradely courts.

LAW ENFORCEMENT

The constitution places the responsibility of law enforcement on the Procurator-General. The Procurator-General is appointed by the Supreme Soviet for a period of seven years, and he appoints procurators-general of the union and autonomous republics, territories and regions.

District and city procurators are appointed for five years by the pro-

curator-general of the union republic in which they are located, subject to the approval of the Procurator-General of the U.S.S.R. The Procurator-General's department functions independently of any local representative state authority.

Cases of a criminal or civil nature have at times been settled administratively without reference to the courts, depriving the accused of the right of appeal and other rights laid down in the Soviet judicial system. Soviet citizens have been arrested, tried and sentenced by the secret police; since 1954 the secret police have been called the Committee for State Security (or the KGB, for its Russian initials). The KGB, technically subordinate to the Ministry of the Interior, is one of the most powerful instruments of control for the Soviet rulers, second in importance only to the C.P.S.U. itself. In the 1960s the extraordinary powers of the KGB have been used to a far lesser extent than previously.

Apart from the regular police or the army, there is also the G.P.U., a "private army" of Party apparatus, functioning as a "State within a State."

Busy traffic on the Volga at Gorky, downstream from Kalinin. The Oka River, the Volga's largest western tributary, has its confluence with the Volga at Gorky. From there the Volga flows east, then south, finally emptying into the landlocked Caspian Sea.

Also important are restrictions on travel and residence, forced labor and censorship of the press.

Religion

Under the tsars, the Orthodox Church was the established church of the Russian Empire, and most of the Great Russian, Ukrainian, Belorussian and Georgian people belonged to it. After the 1917 Revolution, this church lost its predominant position. The Soviet Government nationalized all its property and placed all religions on an equal footing by a decree issued Jan. 23, 1918, and the C.P.S.U. launched a large-scale campaign against religion.

Article 124 of the constitution states that the church in the U.S.S.R. is separated from the state and "freedom of religious worship and freedom of anti-religious propaganda is recognized for all citizens." Since 1943 there has been a State Council for the Affairs of the Orthodox Church in the Council of Ministers, which closely observes all religious activities and tries to bend them to the interests of the state. Members of the C.P.S.U. and Communist youth organizations are discouraged to participate in any religious activities.

Despite the hostility of the C.P.S.U. to religion, tens of millions of people in the U.S.S.R. adhere

openly or secretly to organized religious groups. Of these, the Russian Orthodox Church is the largest.

THE RUSSIAN ORTHODOX CHURCH

The Russian Orthodox Church is headed by the Patriarch of Moscow and All Russia, assisted by the Holy Synod. The Holy Synod is composed of the Metropolitans of Moscow, Leningrad and Kiev and three bishops from the three regions that make up the Patriarchate of Moscow.

No statistics concerning religious affiliation were obtained in the 1959 Census. It has been estimated that the Russian Orthodox Church now has between 25 and 50 million members.

During World War II, the Orthodox Church supported the state, and the relations between the church and the government improved. Since October 1943, these relations have been regulated by the Council for the Affairs of the Orthodox Church. Similar councils have been set up for the affairs of other religious communities.

The Georgian Orthodox Church and the schismatic Old Believers, or "Believers in the Old," are among the few sects of the Orthodox Church to maintain a separate existence. Another major sect—the Rome-oriented Uniate Church of the western Ukraine and





A view of the Volga at Kalinin, about one hundred miles northwest of Moscow. The Volga, Europe's longest river, rises in the Valday Hills in central European Russia. Its proximity to the Don, the Dnepr and other major rivers gives European Russia a vast natural network of inland waterways.

western Belorussia—was “reincorporated” into the Russian Orthodox Church after the end of World War II.

OTHER CHURCHES

The second largest religious group in the U.S.S.R. is comprised of the estimated 24 million Moslems, who live in Central Asia, European Russia and Siberia, Ciscaucasia, and Transcaucasia.

The chief Protestant sects are the Union of Evangelical Baptists, who number well over a million, and about a million Lutherans, mostly in Latvia and Estonia. An estimated 2 million Jews have their chief communities in Moscow and Kiev. They have been encouraged (with less than moderate success) to settle in the Jewish autonomous region in the Soviet Far East.

The Armenian Apostolic (or Gregorian) Church has more than a million adherents in the Armenian S.S.R., and still maintains close ties with Armenian religious groups throughout the world.

The Buddhists live in the autonomous republic of the Buryat-Mongols, in the Kalmyk and Tuva autonomous regions, and the regions of Chita and Irkutsk. They are organized under a Lama.

Roman Catholics are most numerous in Lithuania and the western Ukraine. The highest ranking Catholic clergymen in the U.S.S.R. are four bishops.

ORGANIZED ATHEISM

All of these religious groups—both individually and collectively—have been the targets of a massive Soviet campaign of anti-religious propaganda. This many-faceted campaign varies in intensity depending on the political exigencies of the moment. Its object—to win the people away from religious “superstition”—is preached in the schools and the newspapers.

Two organizations, both under the aegis of the Communist Party, have served as special centers for the proliferation of anti-religious propaganda. The first, founded in 1925, was the Society of the Militant

Godless, which organized anti-religious parades, opened “museums of atheism,” and established “seminaries” for the teaching of atheistic principles. It eventually had some six million active members, but was disbanded at the beginning of World War II.

The second organization, the All-Union Society for the Dissemination of Political and Scientific Knowledge, was founded in 1950. Less sensational than its forerunner, though probably more subtle and efficient in its methods, it has a membership of about 350,000. This group emphasizes the “control” rather than the “destruction” of religion, and concentrates its efforts on the young.

A 19th-century painting by I. Y. Repin depicts the hapless plight of the Volga boatmen, who hauled heavy-laden boats and barges hundreds of miles upstream by sheer muscle-power. The famous “Song of the Volga Boatmen,” with its heaving rhythms, recalls the misery of these Russians of a bygone age.

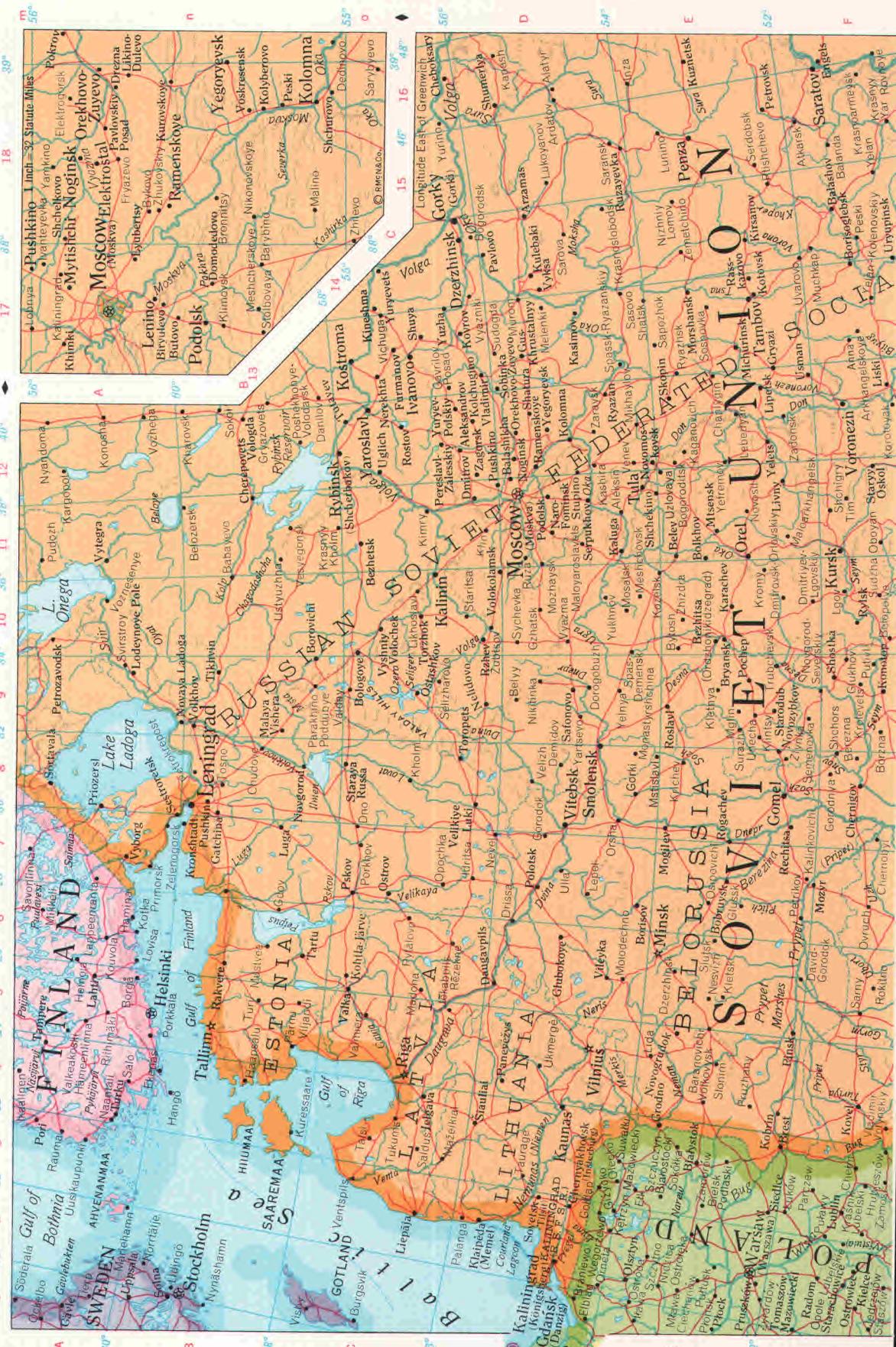


WESTERN SOVIET UNION

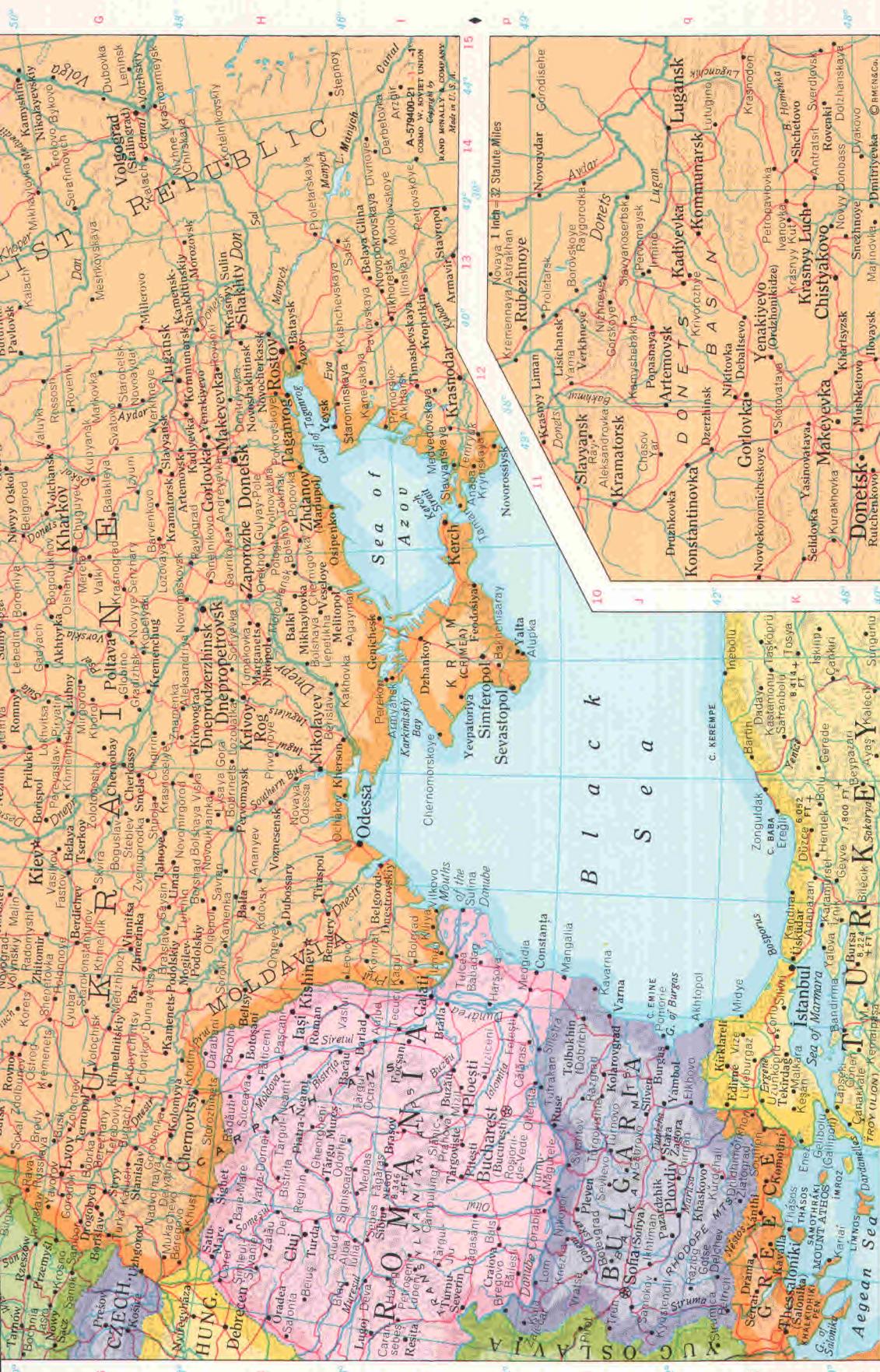
WESTERN SOVIET UNION

Principal Cities

Pop.—Thousands	
52	Akhtyrka.....F10
61	Artemovsk.....G12, q21
112	Babushkin.....n17
58	Balashikha.....D11
64	Balashov.....F14
47	Balta.....H 7
58	Baranovichi.....E 5
52	Bataysk.....H12
67	Beltys.....H 6
53	Berdichev.....G 7
97	Bobruysk.....E 7
48	Borislav.....G 4
54	Borisoglebsk.....F13
59	Borisov.....D 7
47	Borovichi.....B 9
73	Brest.....E 4
206	Bryansk.....E10
83	Cheboksary.....C16
92	Cherepovets.....B11
83	Cherkassy.....G 9
89	Chernigov.....F 8
145	Chernovtsy.....G 5
92	Chistyakovo.....q21
65	Daugavpils (Dvinsk).....D 6
194	Dneproderzhinsk.....G10
658	Dnepropetrovsk.....G10
707	Donetsk.....H11, r20
163	Dzerzhinsk.....C14
97	Elektrostal.....n18
90	Engels.....F16
48	Gatchina.....B 8
166	Gomel.....E 8
942	Gorky (Gorki).....C14
293	GORLOVKA.....G12, q21
72	Grodno.....E 4
53	Gus-Khrustalny.....D13
332	Ivanovo.....C13
180	Kadiyevka.....G12, q21
261	Kalinin.....C10
200	Kaliningrad (Königsberg).....D 3
133	Kaluga.....D11
58	Kamenets-Podolskiy.....G 6
58	Kamensk-Shakhtinskiy.....G13
55	Kamyshin.....F15
214	Kaunas.....D 4
99	Kerch.....I11
930	Kharkov.....G11
157	Kherson.....H 9
62	Khmelnitskiy.....G 6
1,102	Kiev (Kyiv).....F 8
84	Kineshma.....C14
127	Kirovograd.....G 9
217	Kishinev.....H 7
89	Klaipeda (Memel).....D 3
53	Klin.....C11
49	Klintsy.....E 9
100	Kolomna.....D12, n18
98	Kommunarsk.....G12, q21
53	Konotop.....F 9
89	Konstantinovka.....q20
171	Kostroma.....C13
100	Kovrov.....C13
115	Kramatorsk.....G11, q20
54	Krasnoarmeysk.....G15
312	Krasnodar.....H12
94	Krasny Luch.....q21
67	Krasny Sulin.....H13
86	Kremenchug.....G 9
386	Krivoy Rog.....H 9
50	Kronshtadt.....B 7
54	Kropotkin.....I13
128	Kuntsevo.....n17
203	Kursk.....F11
57	Kuznetsk.....E16
3,321	Leningrad.....B 8
80	Liepaja.....C 3
156	Lipetsk.....E12
274	Lugansk.....G12, q22
49	Lutsk.....F 5
410	Lvov.....G 5
93	Lyubertsy.....n17
86	Lyublino.....n17
358	Makeyevka.....G11, q20
95	Melitopol.....H10



Statute Miles Kilometers



80	Michurinsk	E13
509	Minsk	E 6
121	Mogilev	E 8
5,046	Moscow (Moskva)	D11, n17
73	Murom	D13
99	Mytishchi	n17
59	Nezhin	F 8
224	Nikolayev	H 9
81	Nikopol	H10
125	Noginsk	D12, n18
61	Novgorod	B 8
94	Novocherkassk	H13
107	Novomoskovsk	D12
93	Novorossiysk	I11
104	Novoshakhtinsk	H12
667	Odessa	H 8
108	Orekhovo- Zuyevo	D12, n18
152	Orel	E11
64	Orsha	D 8
70	Osipenko	H11
50	Pavlovskiy Posad	n18
254	Penza	E15
143	Perovo	n17
135	Petrozavodsk	A10
124	Podolsk	D11, n17
141	Poltava	G10
81	Pskov	C 7
50	Pushkin	B 8
580	Riga	C 5
597	Rostov [on Don]	H12
57	Rovno	F 6
50	Rubezhnoye	p21
213	Ryazan	D12
181	Rybinsk (Schherbakov)	B12
90	Saransk	D15
581	Saratov	F15
105	Serpukhov	D11
148	Sevastopol	I 9
196	Shakhty	H13
50	Shatura	D12
64	Shuya	C13
75	Siauliai	D 4
189	Simferopol	I10
80	Slavyansk	G11, q20
83	Slavyanskaya	I12
146	Smolensk	D 8
86	Sovetsk (Tilsit)	D 3
66	Stanislav	G 5
140	Stavropol	I13
97	Sumy	F10
62	Sverdlovsk	q22
201	Taganrog	H12
280	Tallinn	B 5
170	Tambow	E13
74	Tartu	B 6
52	Ternopol	G 5
62	Tiraspol	H 7
345	Tula	D11
90	Tushino	n17
63	Uman	G 8
50	Usman	E12
47	Uzhgorod	G 4
59	Velikiye Luki	C 8
51	Vichuga	C13
236	Vilnius (Vilna)	D 5
121	Vinnitsa	G 7
148	Vitebsk	D 8
154	Vladimir	C13
597	Volgograd (Stalingrad)	G15
138	Vologda	B12
67	Volzhskiy	G15
454	Voronezh	F12
51	Vyborg (Viipuri)	A 7
66	Vyshniy Volochek	C10
47	Yalta	I10
406	Yaroslavl	C12
59	Yegoryevsk	D12, n19
78	Yelets	E12
92	Yenakiyevo (Ordzhonikidze)	G12, q21
57	Yevpatoria	I 9
55	Yeysk	H12
73	Zagorsk	C12
434	Zaporozhe	H10
284	Zhdanov (Mariupol)	H11
105	Zhitomir	F 7



A newly constructed dam across the Dnepr River between Dnepropetrovsk and Zaporozhe, in the southern Ukraine. Despite its size, it is only one of several dams on the Dnepr supplying power to the vast industrial and agricultural complex of the Ukraine.

er generation. All organizational and financial aspects of religious bodies—including property, buildings, education of priests, etc.—fall under this control.

Education

The constitution affirms the right of every citizen of the U.S.S.R. to an education. Education is free and compulsory for children from age seven through the mid-teens (the terminal age being determined by various considerations, and generally ranging from 15 to 17). There are also facilities for the care and education of pre-school children. Facilities for higher education in the professions, sciences and other areas are well developed.

With the beginning of the recent Seven Year Plan (1959-1965), the U.S.S.R. embarked on a massive program to renovate the Soviet educational structure from top to bottom. This program, as first set forth in a major document, "On Strengthening the Relation of the School with Life and on the Further Development of the System of Public Education in the Country" (1958), was still in its infant stages during the early 1960s. During this period there was

considerable overlapping of the "old" and "new" educational systems in the U.S.S.R.

For a survey of both systems, as well as for a general discussion of the aims, methods and achievements of Soviet education, see the section in this volume on U.S.S.R.: The People.

Language

The Soviet Union dignifies the language of each national group with the title National Language. About 110 languages are spoken in the U.S.S.R., but they may be classified into twelve main groups: Slav, Turko-Tatar, Finno-Ugrian, Latvian-Lithuanian, Armenian, Moldavian (Romanian), Georgian, Daghestani, Iranian, Yiddish, Mongolian and Paleo-Asiatic.

The Slav group includes Russian, Ukrainian and Belorussian, which are spoken by the majority of the people of the U.S.S.R. The Turko-Tatar group includes the languages of the Kazakhs, Kirghiz, Turkmens, Tatars, Chuvash, Bashkirs, Yakuts, Azerbaiydzhanis and Uzbeks.

The Mordvinians, Udmurts, Maris, Komis, Estonians, Karelians and Finns belong to the Finno-Ugrian group. Iranian is spoken by the

Tadzhiks and the Ossetians. Many Jews speak Yiddish. The Paleo-Asiatic group includes the languages of the Chukchis and the Koryaks. The Buryats speak Mongolian. The Latvian-Lithuanian, Armenian, Moldavian, Georgian and Daghestani languages are identified with the peoples of the same name. General education is often taught in the local language.

Money and Measures

The monetary unit of the U.S.S.R. is the ruble, made up of one hundred kopeks. Banknotes are in circulation for 1, 3, 5 and 10 rubles. Silver and copper coins have a value of 1, 2, 3, 5, 10, 15, 20 and 40 kopeks. Since January 1, 1961, the new ruble is worth \$1.10.

The Soviet Union uses the decimal metric system. However, some old linear measures are still in use, such as the *arshin*, equal to 28 inches, the *sazhen*, equal to 7 feet and the *verst*, equal to 6.6 miles. The old units of weight include the *pud*, which is about 36 pounds, and the *funt*, which is 1½ ounces lighter than the American pound.

Conclusion: The Nature of the Soviet State

There is much that is puzzling in the Soviet system, especially to those

who live under a democratic government: the great differences between theory and practice in the operation of the state, the presence of representative institutions that do not represent in our usage of the term, elections in which there is no choice, the existence of only one political party and the nature and functions of that party itself.

The Soviet system can best be understood in the context of its ideology—the Soviet political and economic philosophy. According to this ideology, Marxism-Leninism, it is the task of the C.P.S.U. not only to build and extend a Communist society at home, but also to spread Communism abroad. This means that every public action has to be measured in two ways: does it bring the Soviet Union closer to the goals of Communism at home, and does it further the cause of international Communism?

Those who created the Soviet state placed no great value on individual rights or the sanctity of law. To the founders of the Soviet state, the creation of a Communist society was the highest good, and, once it

was achieved, a huge variety of other benefits would follow. Thus, although the Soviet constitution may set forth many of the democratic ideals so familiar in the Western world, the C.P.S.U. and the central organs of the Soviet state are free to violate the constitution, because according to their view laws must not stand in the way of their ultimate goal.

It is clear that the hierarchy of Soviets does not serve either as the supreme legislative power or as a representative assembly of the whole nation. The Soviets act as rubber stamps for the decisions of the small group of Party men who run the state through the Council of Ministers and the Presidium of the Supreme Soviet of the U.S.S.R.

PUBLIC OPINION

The Soviets do, however, serve other functions which are not described in the constitution. They act as barometers of public opinion and as recruiting grounds for the Communist Party. Although the Soviets, at all levels, never question the propriety of laws and decrees brought

before them for their approval, they can question the wording of a law or the details of administration. In such discussions the Soviets at all levels provide the rulers of the Soviet Union with valuable evidence of the sentiments of their people, which the rulers may take into account or ignore.

Those who are selected by the Party and official organizations to serve in the Soviets are on trial. If they show administrative ability and loyalty to the official ideology, they are recruited into the Party and promoted to higher government posts.

The C.P.S.U. is not like political parties in Britain, Canada or the United States. It is intended to be a small hard core of skilled and disciplined leaders for the whole society. The Party tries to recruit the most talented men in the arts, business and government.

STATE AND PARTY

As stated earlier, at every administrative level, parallel to the state organization there is a comparable Party organization. Although

High mountain country in the Greater Caucasus. In the background is the huge mass of Mt. Kazbek, an extinct volcano rising over 16,000 feet above sea level.





A mountain landscape forms an impressive backdrop to a sheep farm in the Georgian S.S.R. This small republic, the birthplace of Josef Stalin, extends from the central heights of the Greater Caucasus to the southern chains of the Lesser-Caucasus, and borders on the Black Sea to the west and Turkey to the south.

exposed to the official Party line and faced with the overwhelming power of the Party. Every citizen is expected to accept the superior wisdom of the Party though its rule no longer is as oppressive as it was in Stalin's day, the penalties for non-conformity can still be severe.

THE EUROPEAN U.S.S.R.

THE EUROPEAN AREA OF THE SOVIET Union consists of the East European Plain, together with the Ural Mountains in the east and the Carpathian Mountains, the Crimea and Ciscaucasia in the south. It is predominantly a rolling lowland; heights, except in the bordering mountains, rarely exceed 1500 feet. This region is often referred to as European Russia.

The Land

The surface of the plain is made up principally of sedimentary deposits laid on an ancient platform of Pre-Cambrian crystalline rock. These old rocks are exposed in the northwest on the Baltic Shield, which includes Karelia and the Kola Peninsula, and in the southwest on the Volyn-Podolian Upland in the Ukraine.

The platform underwent numerous uprisings and depressions in the course of its geological history and these, though not severe, have left their marks on the landscape. A more important influence on the landscape, however, was the alternating advances and retreats over the land of the surrounding seas. Much of the soil of the plain consists of marine sediments left by these movements.

A further significant factor in determining the features of the landscape was glaciation. During the Quaternary period, glaciers covered the northern and some of the central area, leaving deposits of boulders, coarse gravel, fine gravel, sand and clay. After the soil had dried out, the wind carried fine powder dust deep into the southern plain.

the state and Party organizations may have some personnel in common, the job of the Party is different. The C.P.S.U. guides, directs and checks the operations of the state organization and has far more initiative. At the top, of course, the highest state and Party organizations tend to have the same men as members, insuring uniform direction from above. Nikita Khrushchev, as First Secretary of the C.P.S.U. and Chairman of the Council of Ministers, is by far the most powerful single individual in the Soviet Union.

What is lacking in the Soviet political system, in comparison to democracy as it is understood in the Western world, is competition between political ideas. In the Soviet Union there is little opportunity for individuals or minority groups to express their own ideas or defend their interests. No organization which is not recognized by the state can nominate candidates for public office, operate newspapers, use radio and television facilities or hold public meetings.

On all sides the Soviet citizen is

THE FAR NORTH

The land from the Barents Sea south to about 60°N. latitude has a typical glacial topography. In the west is the Karelian Isthmus, a hilly lowland crossed by long, low sandy ridges (eskers). This area has many large shallow lakes of glacial origin; for this reason it is sometimes called the Lake Region.

Northeast of Karelia is the Kola Peninsula, formed of crystalline rocks which show the effects of glaciation in their rounded summits, frequent depressions and smooth boulders. The highest mountains on the peninsula, the Khibiny, rise to 3930 feet.

The largest area of the far north is the flat, almost featureless plain which extends from Karelia to the Urals. Sometimes called the Dvina-Pechora Lowland, it is drained by these rivers and by the Mezen. This lowland is interrupted only by the low and eroded Timan Ridge, which continues northward into the curiously shaped Kanin Peninsula.

THE NORTHERN UPLANDS

Below this far northern area is a series of moraine ridges formed by glaciers. In the west are the Lithuanian and Belorussian uplands (1100 feet), and toward the center of the plain the Valday Hills rise to slightly over 1000 feet.

This morainic area contains a large number of glacial lakes and islands. The ridges, though low, form the most significant feature of the East European Plain and serve as watersheds between the northern and southern drainage areas.

The Lithuanian and Belorussian uplands merge toward the north with the Baltic Lowland, where the lakes are replaced by marshes and peat bogs. To the south are the Prypet Marshes. The Valday Hills are the source of three important rivers—the Volga, the Dnepr and the Western Dvina.

THE MOSCOW BASIN

Southeast of the Valday Hills, in the center of the Russian platform, is the Moscow Basin. Shaped like a shallow saucer with uneven edges,

it has rich deposits of lignite. Once a marshy area and subject to floods, it is now properly drained and has excellent forests.

To the east of the Moscow Basin is a wide platform of red marl, dolomite and chalk, which has a karst type of erosion, with closed hollows and sinkholes. It is drained by the Kama River.

Below the morainic ridges and the Moscow Basin, the plain is marked by a series of uplands separated by the valleys of the Dnepr, Don, Oka and Volga rivers. These are, from west to east, the Volyn-Podolian Upland in the Ukraine, the Central Russian Upland, the Volga Heights and the Obshchy Syrt.

THE VOLYN-PODOLIAN UPLAND

Basically a level plateau which rises over 1400 feet, the Volyn-Podolian Upland does have areas of slight relief. Ancient crystalline rocks are largely covered by later sedimentation, which has been eroded by the Dnestr, Southern Bug and Dnepr rivers. The upland is heavily wooded in the northwest and elsewhere has fertile black-earth cover.

POLESYE

To the north of the Volyn-Podol-

ian Upland begins Polesye, a sandy, forested and often swampy lowland which extends into Belorussia (or White Russia) and constitutes the basic topographic feature of that republic. The Prypet Marshes in this area formed a barrier between Russia and the rest of Europe. In recent years, these marshes have been largely drained.

CENTRAL RUSSIAN UPLAND

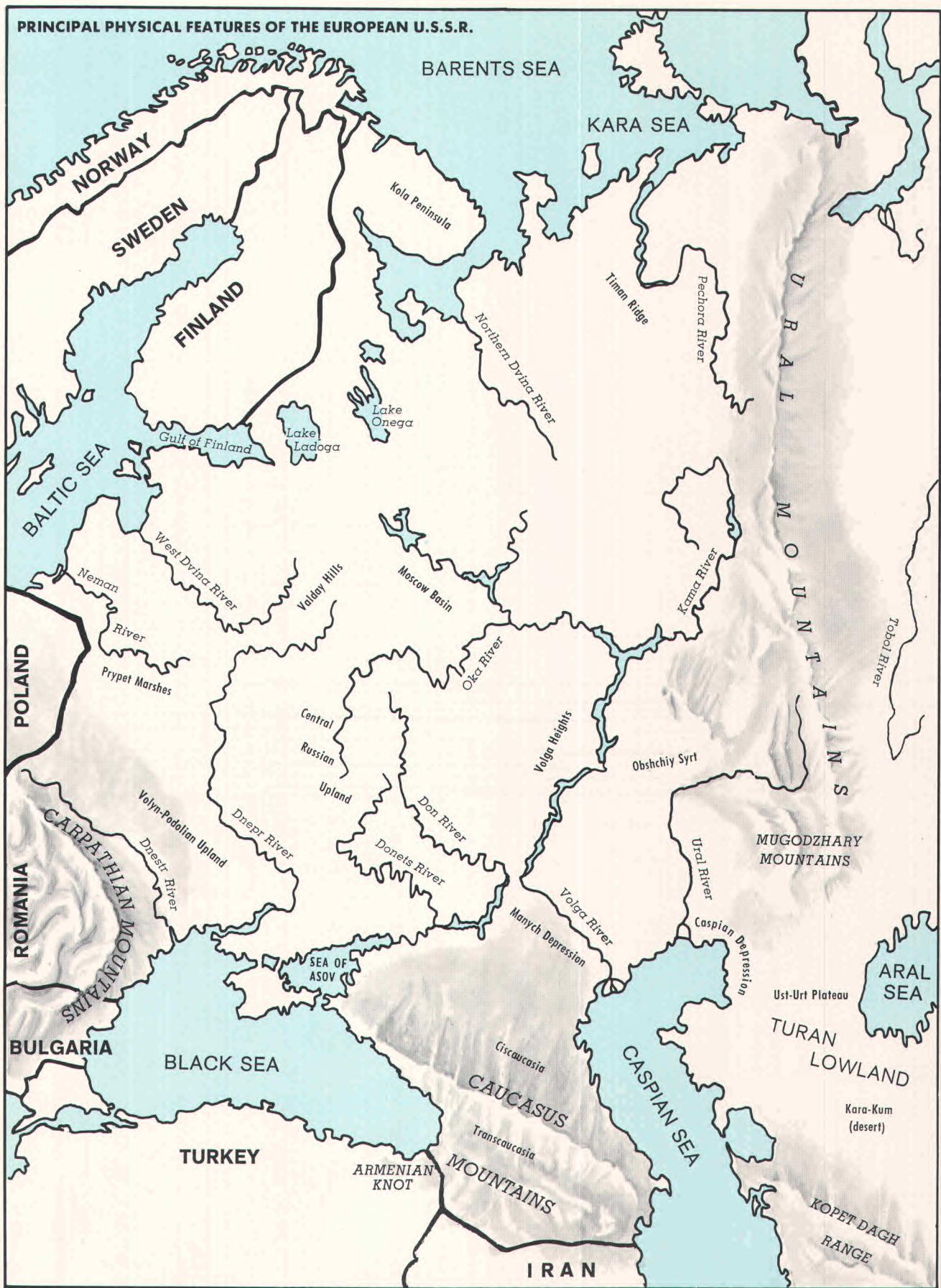
To the east of the Volyn-Podolian Upland is the Dnepr Lowland, which extends northeast to the Central Russian Upland. This upland is a rolling plateau with a few low hills and marshy depressions. It reaches an elevation of 1900 feet and contains the sources of the Oka and Don rivers. It is separated by the Donets River from the Donets Ridge to the south.

VOLGA HEIGHTS

On the western side of the Volga River is an elevation which extends for about 700 miles from Gorky, southwest to the Volgograd area. The most important section of these heights is in the Samara Bend, where the Zhiguli Mountains reach an elevation of 1217 feet. These mountains are marked by deep narrow valleys



The Berezina River near Borisov, northeast of Minsk, in the rich agricultural region of Belorussia, or White Russia. Not far from this quiet spot the army of Napoleon was severely defeated during the disastrous retreat from Moscow in 1812.



and limestone cliffs. The Volga Heights continue south of Volgograd to the Manych Depression as the Yergeni Hills.

OBSHCHY SYRT

An outlier of the Ural Mountains, this upland area is characterized by a relief of wide river valleys and low, regular watersheds. In the south, it ends in cliff-like formations on the Caspian Depression. To the north is a hilly plain which rises gradually toward the east and forms the Ufa Plateau east of the Kama and Belaya rivers. The surface of this area is deeply dissected by wide river valleys and ravines.

THE LOWER SOUTHERN PLAIN

Below the Volyn-Podolian Upland, the Dnepr and Oka-Don Lowlands merge to form the Black Sea Lowland in the southern Ukraine. Farther east the Oka-Don Lowland joins the valley of the lower Volga to form the Caspian Depression. These two areas are connected by the Manych Depression, the bed of a former strait between the Black and Caspian seas.

The lower southern plain was covered with fine-grained, wind-borne loess of glacial origin. These deposits were easily eroded, leading to the characteristic ravine and gully relief of the area. The receding Caspian Sea left sand and clay deposits in the lower Volga region and salt flats and lakes between the sand hills of the Caspian Depression. The southern portion of the depression is below sea level.

CISCAUCASIA

Below the Manych Depression is Ciscaucasia. It is divided by the Stavropol Plateau (2700 feet) into the Terek Steppe on the east and the Kuban Steppe on the west. European U.S.S.R. ends in the south with the foothills of the Greater Caucasus Mountains.

THE CARPATHIANS

To the southeast, the East European Plain is bordered by the Carpathian Mountains, which extend through the Ukraine for about 150 miles. Formed during the Alpine uplifting, they are made up of a number of ranges, rising gradually toward the southeast, where they reach an elevation of more than 6000 feet. To the northeast, the Carpathian foothills extend to the Volyn-Podolian Upland. On the south-



Wrangel Island, two thousand square miles of rugged Arctic tundra and mountains, is situated in the East Siberian Sea. It is separated from the Soviet mainland by Long Strait. Russia laid formal claim to the island in 1924.

ern slopes of the Carpathians is the Transcarpathian Ukraine.

THE CRIMEA

The Crimea (the Tauris of the ancient Greeks) is joined to the mainland by the Perikop Isthmus, only five to fourteen miles wide. Three-fourths of the Crimea is a steppe, with clayey and sandy soil that becomes covered with saline particles near the coast. The Kerch Peninsula on the east is a low, hilly region.

Toward the south, gentle slopes rise to the Tauris Mountains, a modest range, ninety miles long and thirty miles wide. They belong to the great Alpine foldings and are

linked to the Carpathians and the Caucasus ranges.

The principal chain reaches the Black Sea in a series of sheer cliffs from five to eight miles long. These are the Yayla Mountains, named from the Tatar word for the high pasture lands which occur in the interior area. The highest peak is the Roman-Kosh (5062 feet). There are two other ridges, one 1640 feet and the other 980 feet above sea level.

South of the mountains is a narrow coastal plain. Limestone bluffs protrude from the mountains toward the sea, and there are volcanic rocks near extinct volcanoes.

THE BLACK SEA

The Black Sea has an area of 159,000 square miles and is linked to the Mediterranean by the Bosphorus, the Sea of Marmara and the Dardanelles. It is bounded by the U.S.S.R. on the north and east, by Romania and Bulgaria on the west and by Turkey on the south and southwest. Its political importance for the U.S.S.R. is limited because the exit to the Mediterranean is held by Turkey, but it has great climatic importance.

Its waters are very deep (reaching more than 7000 feet), and they have a modifying effect on the climate of the surrounding regions, especially the Crimea and the western Caucasus.

It is separated from the Sea of Azov to the northwest by the Kerch Strait. The Sea of Azov is 14,000 square miles in area and is so shallow that the Romans called it a marsh.

THE CASPIAN SEA

Separated from the Black Sea by the Caucasus, the Caspian Sea is bordered on the west, north and east

by the U.S.S.R. and on the south by Iran. It is 92 feet below sea level and is receding. Once considerably larger, it now has an area of 152,239 square miles and has become more like a large salt lake than a sea. Its greatest depth is 3215 feet.

Salinity varies greatly. At the delta of the Volga, the water is almost fresh, but in the Kara-Bogaz-Gol Gulf on the east, salinity rises to 25 parts per 100. Fish die when they enter these waters, and the wind and currents carry their bodies to the Turkmenistan shore, where the inhabitants collect them for food.

There are a few islands in the Caspian Sea, but they are just sand and mud banks with vegetation on them. Jets of naphtha mixed with sulphurated hydrogen and carbonic acid are emitted from these banks.

THE URAL MOUNTAINS

The Urals form the boundary between the European U.S.S.R. and Siberia. They extend about fifteen hundred miles from the Kara Sea in the north to the adjacent Mugodzhar Mountains in the south, which are

A small village hugs the side of a mountain slope in Svanetia, an isolated part of the Georgian S.S.R., in the Greater Caucasus. The Svans, who have inhabited the region for over 2000 years, are only one of more than fifty ethnic groups in the Caucasus.

structurally a continuation of the Urals.

Once much taller, the Urals are now a low range with a maximum elevation of less than 6200 feet and an average elevation of only 1600 feet. Their rounded, heavily eroded ridges do not provide a serious obstacle to traffic between Europe and Asia.

These mountains are subdivided into the northern, or stony, Urals; the central, or metal-bearing, Urals; and the southern, or wooded, Urals.

The northern Urals are steep. Their tops are ice-covered, and the lower slopes are covered with conifers. The coast range, the Pay Khoy, extends northward on the Yugorsky Peninsula and continues on the islands of Vaygach and Novaya Zemlya.

The northern Urals are only twenty-five miles wide and have huge marshy valleys. They reach their highest elevation at Narodnaya Peak (6184 feet).

The central Urals, about eighty miles wide, are covered by beautiful forests of fir trees and have rich mineral deposits. The mountains are gently sloping and have many little lakes on their eastern side. In general, the elevation is low, but the central Urals rise to a height of 5154 feet at the Konzhakosky Kamen.

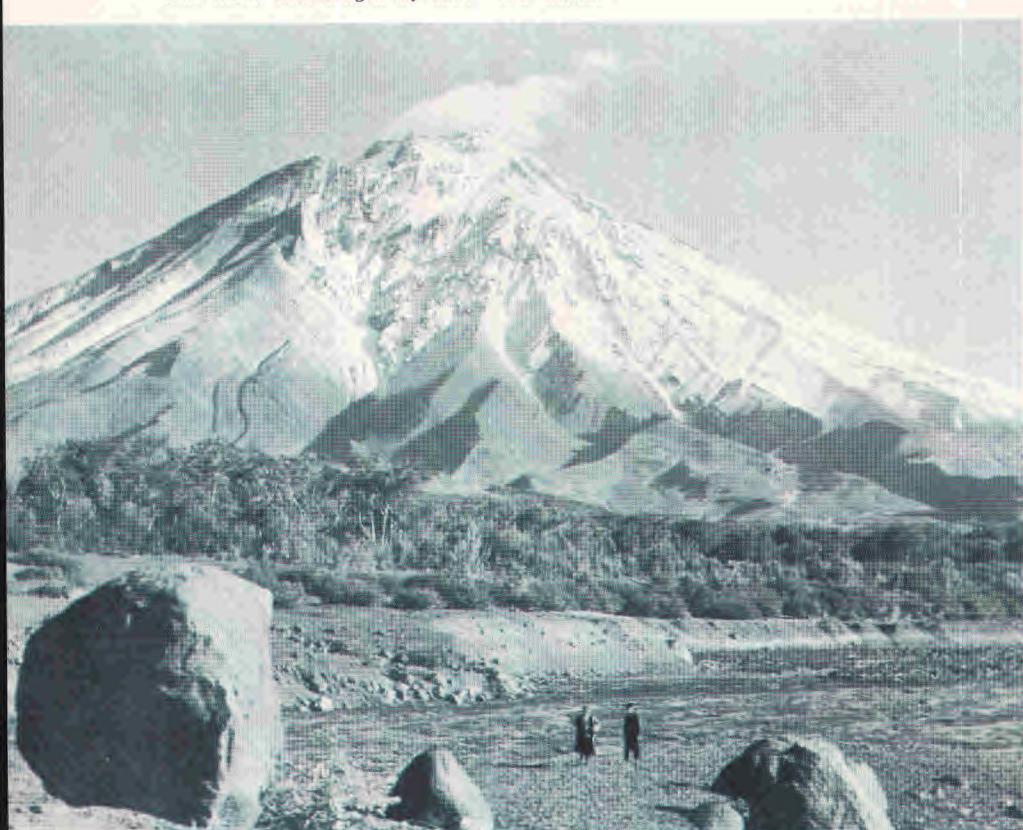
In the southern, or wooded, Urals, the range becomes wider (more than a hundred miles) and more rugged. Yaman-Tau (5377 feet) is the highest peak.

The European U.S.S.R.: Climate

The East European Plain has a continental climate, which is more modified by Atlantic influences than the climates of Siberia or Soviet Central Asia.

TEMPERATURES

There are only slight differences between the average winter temperatures at Vayda-Guba on the Arctic Ocean (23° F. in January) and at Rostov on the Black Sea (22° F.). Summer temperatures are more sensitive to latitude, and so Vayda-Guba has 50° F. in July, while Rostov has 75° F. The Russian winters are cold everywhere and become more and





more bitter from west to east. In summer, the north is cooler than the south but the east is warmer than the west.

There are many reasons for this pattern. In winter the south, east and center are swept by freezing winds from Asia. In the northwest and in the west, the temperature is somewhat modified by the influence of wet, warm winds from the Atlantic. In summer, the northwest and west are under the influence of the cooler sea winds but the south, east and center are warmed by the hot, dry winds from the fiery Asiatic deserts.

PRECIPITATION

In general, precipitation is low. The amount of rainfall diminishes from northwest to southeast; the average is about 18 inches. The rain, 30-40 per cent of which occurs in the summer, falls in violent showers. Torrents of water fall in a

short time. As much as 2.2 inches has fallen in fifteen minutes.

The snow cover is light and remains on the ground for as much as 240 days in the far north and as little as 90 days in the south.

SEASONS

The rigors of the Russian winter were well known even in ancient times. The minimum temperatures, such as -45° F. recorded at Moscow and -22° F. at Odessa on the Black Sea, are discouraging, and so is the length of the Russian winter. The temperature stays below freezing for five months in the extreme north and three months in the southwest.

Although the European Russian winter is not as majestic as the Siberian winter, it has frightening snowstorms called *burany*. Pushkin gives a wonderful description of one in *The Captain's Daughter*. Winter arrives in November, but occasion-

ally, after the first cold days, the temperature rises. The snow melts and the rivers swell and flood. This is the *ottepel*, and one was disastrous for Napoleon's army at the Berezina River. By the end of November, the winter sets in hard under a white carpet of snow.

Spring arrives suddenly in April or May. The snow melts, the rivers swell, the soil is impregnated with moisture, and the roads are transformed into rivers of mud. Transportation is difficult and the rivers, blocked by great slabs of ice, can be dangerous. When the last of the ice and snow melts, the summer and high temperatures arrive. Among the high summer temperatures which have been recorded are 97° F. at Leningrad, 99.5° F. at Moscow, 103° F. at Kuybyshev and 109° F. at Astrakhan.

Although summer has the most precipitation, the evaporation rate is high, and the rivers are low or dried up. Pools and marshes disappear, and springs are exhausted. Sometimes there are dust storms. Violent thunderstorms are frequent, and heavy

The Ob, near its confluence with the Irtysh on the West Siberian Plain. This great Siberian river rises at the confluence of the Biya and Katun rivers and follows a northwesterly course into the Gulf of Ob, an inlet of the Arctic Ocean. Although navigable during the summer and early fall, the river freezes over from November to late May and in many places can be crossed on foot.



A hunter from the territory of Khabarovsk, which lies along the Pacific coast of Siberia. The U.S.S.R. is a prime supplier of furs to the world market, and Eastern Siberia is one of the principal regions of the Soviet fur trade.

rains wear away the steppes and cause landslides.

In September, the days are short, and snow flurries occur in October. The autumn lasts less than two months.

THE CLIMATE OF THE CRIMEA

The climate of the northern Crimea is dry and continental. The southern coast, sheltered by the mountains, has a mild, Mediterranean type of climate. At Yalta the average January temperature is 42° F., and summers are dry and hot. Rainfall on the coastal areas and in the mountains exceeds 20 inches annually, occurring mainly in the winter months.

The European U.S.S.R.

River Systems and Lakes

The rivers of European Russia have been of incalculable importance in the settlement and development of the area. Though they may be ice-free for only a few months out of the year, for centuries they constituted virtually the only arteries for communication and commerce in this vast territory. Farmers have found fertile earth along their banks, and there is an abundance of fish in their waters. In this century, utilization of these rivers for hydroelectric power has contributed significantly to economic development.

The rivers of European Russia empty into the seas of the Arctic Ocean and the Baltic, Black and Caspian seas. Because the divide is north of the center of the plain, the northward flowing rivers carry less water and have shorter courses. The divide is so low that in the beginning the rivers have an uncertain course. This is particularly true of those rivers that rise in Polesye and the Valday Hills. In places the rivers flow fast between steep walls and have rapids and waterfalls, giving the countryside a mountainous appearance despite its flat relief.

Glaciation has given a peculiar character to the river systems of the north. The glaciers forced the ancient rivers to deviate from their courses and cut new valleys parallel to the fronts of the retreating glaciers. Many rivers, having deviated from their former courses, were captured by



other rivers.

The southern regions are not glaciated and are drained by rivers with even courses. The famous rapids of the Dnepr are an exception. They are caused by a granite layer that the water had to cut through.

ARCTIC RIVERS

The Pechora which rises in the northern Urals, drains all the area between the Urals and the Timan Ridge to the west and has a basin of

126,255 square miles. It flows for 1126 miles in complicated meanders through the scrub of the tundra between banks of dying trees. A shallow lagoon, barred by a cordon of islands, links the river mouth to the Barents Sea.

To the west of the Timan Ridge the Mezen River, about 550 miles long, flows through the tundra in a generally northwesterly direction. It drains into the Gulf of Mezen, an arm of the White Sea.

The Northern Dvina is formed by the confluence of the Sukhona and Yug rivers and has many large tributaries. It assumes its name at Kotlas, where it flows between steep high banks that are white as snow. The Northern Dvina drains a basin of about 140,000 square miles and flows northwest into the White Sea. Its estuary is 30 miles wide and is impeded by marshy islands and willows.

THE LAKE REGION

There are so many lakes and streams in the region of the Karelian Isthmus that they form an almost continuous line of water. The largest lakes are Ladoga and Onega.

Lake Ladoga (7000 square miles) is the largest lake in Europe. Of glacial origin, it has an average depth of 167 feet. The northern shores are

of high, granitic rocks and overhang the lake, which contains many marshy, sand- and gravel-covered islands. The southern part of the lake has numerous shoals. Lake Ladoga freezes for about 120 days each year, and slabs of ice are still visible in April.

No fewer than seventy rivers enter Lake Ladoga, bringing to it waters from smaller lakes in the area. It is drained by the Neva River, which empties into the Gulf of Finland, an arm of the Baltic Sea.

The Svir River links Lake Ladoga with Lake Onega (3819 square miles), which has the same elongated shape from northwest to southeast as the Finnish lakes. The northern shores of the lake are indented, and there are tongue-shaped, rocky peninsulas. The southern shore is flat and regular, formed primarily of sedimentary rocks with some spurs of

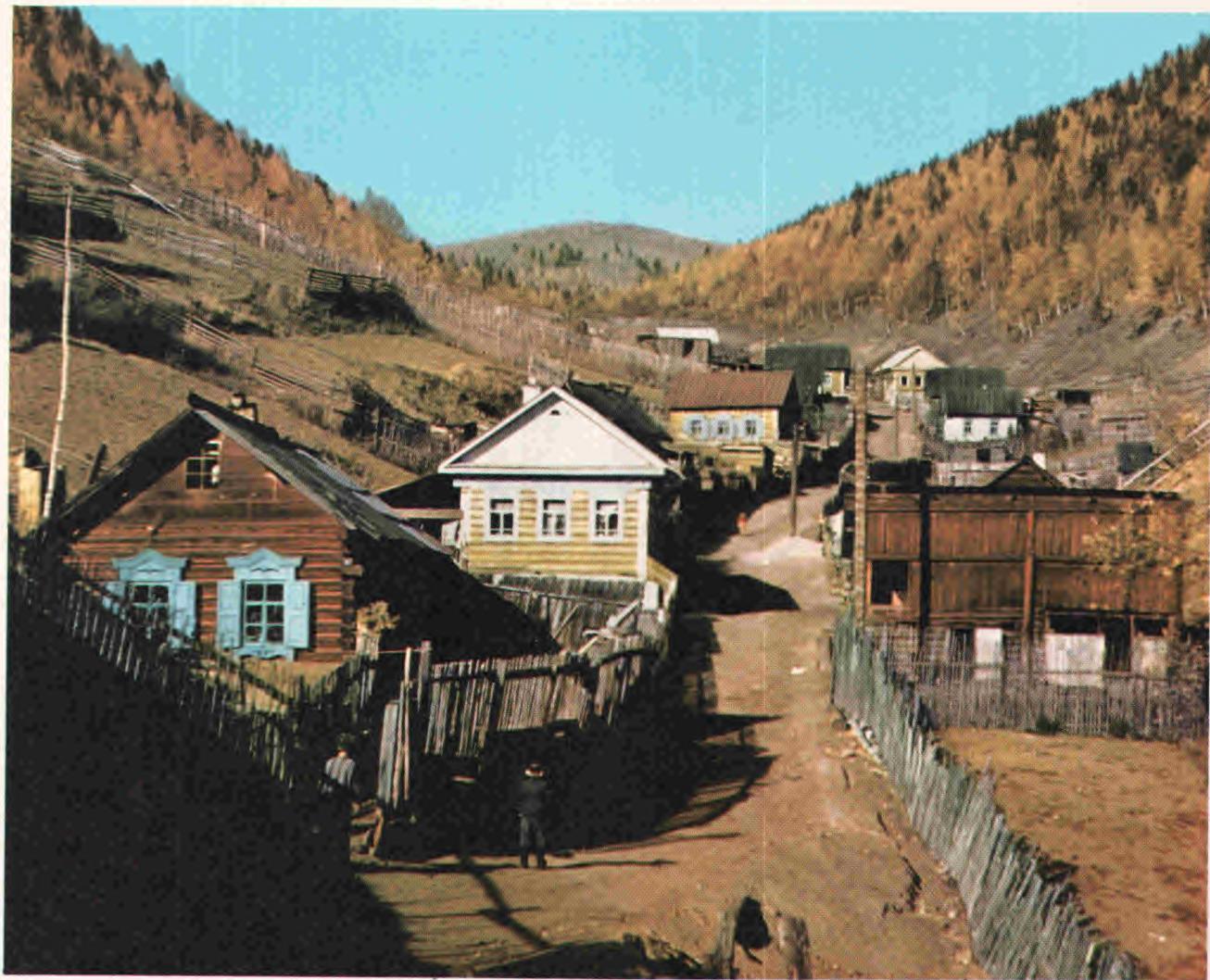
red granite. The waters are colder than those of Ladoga and are frozen for about 160 days each year.

Both lakes have dense summer and autumnal mists that hinder navigation. The Mariinsk Canal System links these two great lakes with the Gulf of Finland to the southwest and also with the Volga. They are also connected by canals, lakes and small rivers with the Gulf of Onega on the White Sea.

BALTIC SEA RIVERS

The Neva River collects the waters of numerous lake basins on its course from Lake Ladoga to the Gulf of Finland. Situated along the banks of its estuary is Leningrad (formerly Petrograd and before that St. Petersburg), which was built by Peter the Great as a doorway to the Baltic for his empire. The river is only 46 miles long, and has a comparatively small basin, but proportionately it carries an enormous quantity of water. Its

A Siberian village. Despite the intense industrialization which has occurred in much of southern Siberia, many villages have kept the appearance they had at the beginning of the period of colonization.



navigability is limited because it is not very deep, and its course is often blocked by ice in its narrow bed. In addition, strong westerly winds cause high tides in the estuary.

The Western Dvina rises in the Valday Hills, flows southwest into Belorussia and then northwest through Latvia. It enters the Baltic Sea through the Gulf of Riga. The largest Russian river draining into the Baltic, it is 634 miles long and has a basin of 32,857 square miles. It has a deep valley, steep banks and rapids in its upper course; later it flows through broad lowlands containing wide swampy areas and many lakes.

The Neman, which rises in Belorussia, flows through Lithuania for most of its 500-mile course before reaching the Baltic. The area near Kaunas has numerous rapids where the waters have cut into the hard granite. It is the historic river of Lithuania.

BLACK SEA RIVERS

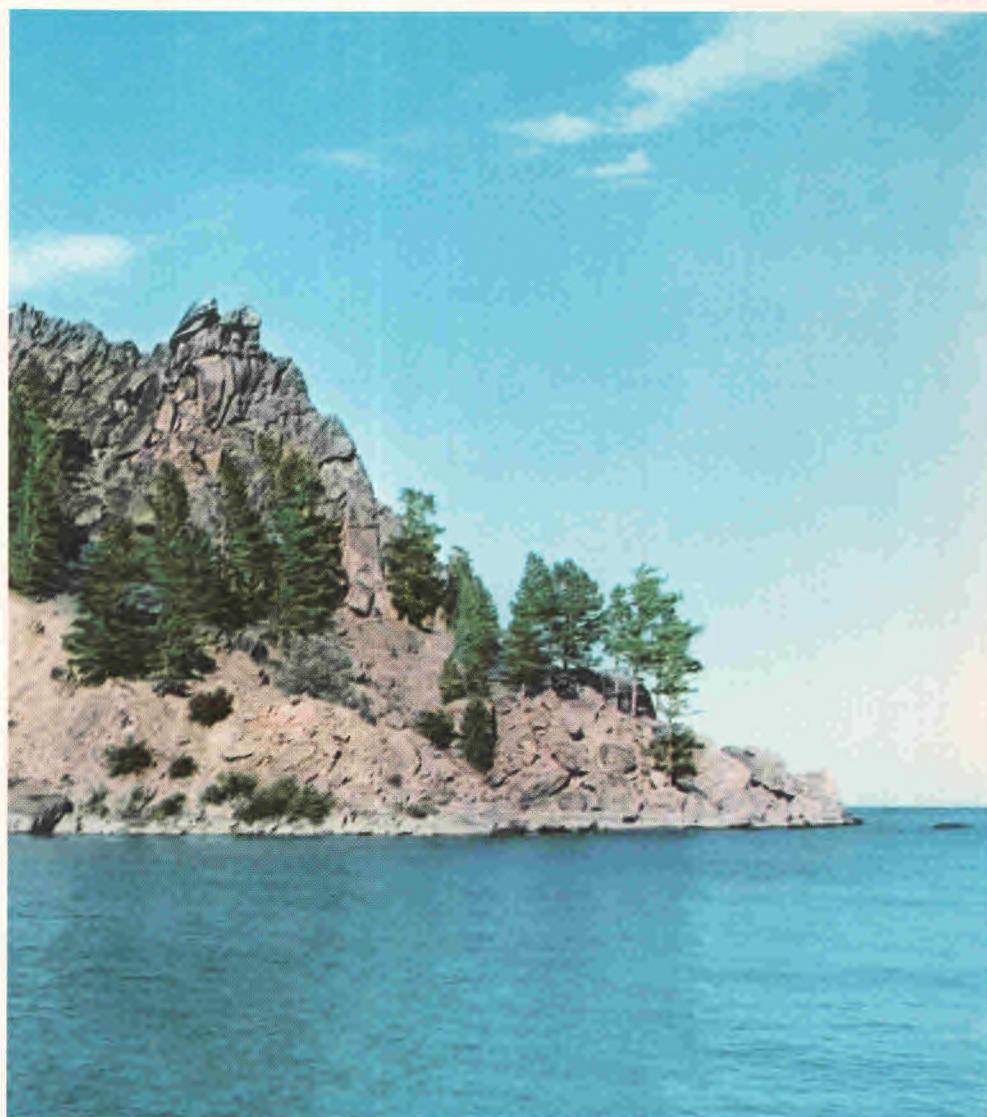
The Dnestr (length, 877 miles; basin, 27,795 square miles) rises in the northeastern Carpathians and flows southeast between rocky and often vertical banks. On its lower course it flows through an area of lakes and marshes and enters the Black Sea near Odessa.

The Dnepr, also known in English as the Dnieper, is the second longest river in European Russia. It rises in the Valday Hills not far from the source of the Volga and the Western Dvina and flows through Belorussia and the fertile black lands of the Ukraine. It is 1420 miles long, with a basin of 194,208 square miles. The Dnepr is one of the most famous of the Russian rivers, with such important cities as Smolensk and Kiev along its banks.

The western bank is as high as 300 feet in places, while the eastern bank is low. The river floods in the spring, and when the waters retreat, the countryside to the east is marshy and waterlogged and is covered with the sand brought down by the river.

Between Dnepropetrovsk and Zaporozhe, the river forms a series of rapids, but modern engineering works have made the Dnepr navigable in this area. At the Black Sea, the Dnepr forms a wide estuary over forty-five miles in length.

Its chief tributaries from the northeast are the Sozh and the Desna rivers. The main tributaries from the west are the Berezina and the Prypyat.



Lake Baikal, the largest basin of fresh water in Eurasia, is situated in southern Siberia, just above central Mongolia. The long, narrow lake lies almost wholly within the Buryat-Mongolian A.S.S.R., a mountainous, heavily forested region whose vast natural resources have hardly been tapped.

The Southern Bug rises in the Volyn-Podolian Upland, and its course is broken by rapids and waterfalls. It empties into the same estuary as the Dnepr.

THE DON

The Don is 1224 miles long, with a basin of 170,849 square miles. It rises in Lake Ivan in the Central Russian Upland near Novomoskovsk. It follows the eastern edge of the hills for some distance and then flows eastward and approaches the Volga River, from which it is separated by the Yergeni Hills. Then the Don flows toward the southwest and empties into the Taganrog Gulf of the Sea of Azov.

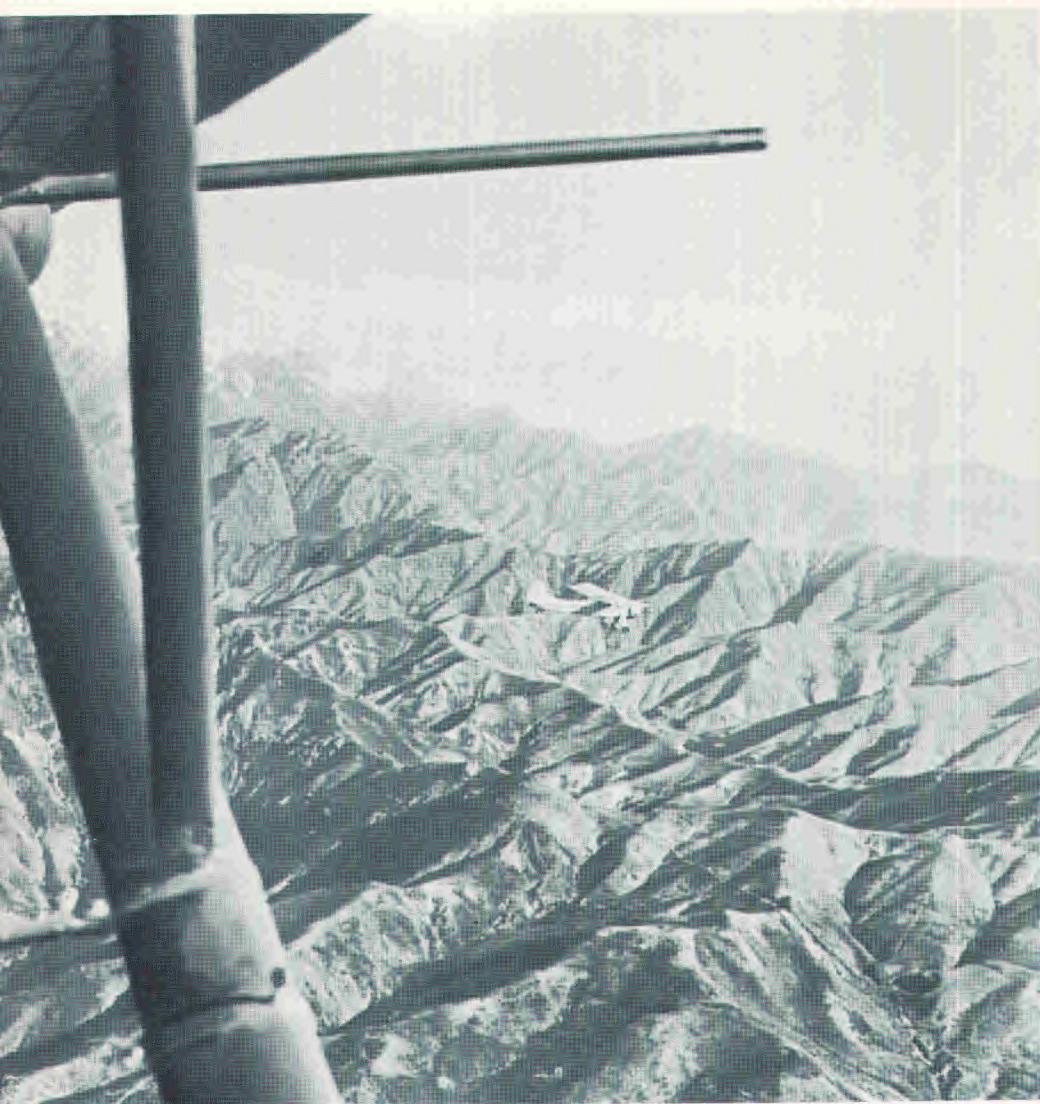
Its navigability was once impeded

by enormous sandbanks and rocky shoals, but the river is now regulated, both to eliminate these hazards and to control seasonal flooding. At Chimlyansky it has been diverted into a 200-mile-long reservoir, to which the Volga is linked by the Volga-Don Canal.

The Donets, or Little Don, 631 miles long, is the most important of its tributaries. The Donets rises south of the Kursk Mountains and crosses the famous coal basin to which it gives its name.

THE VOLGA

The longest and most important river of European Russia, the Volga, is 2293 miles long and has a drainage area of 532,818 square miles. It rises



An air view of the Pamirs. Often called "the Roof of the World," this vast elevated plateau and mountain region, covering much of the Tadzhik S.S.R., also reaches into China and Afghanistan. The highest point in the region—and also in the Soviet Union—is Mt. Communism (formerly Stalin Peak), which rises nearly 25,000 feet above sea level.

in the Valday Hills at an elevation of 665 feet and flows in a generally southeastward direction into the Caspian Sea. It is fed by marshes and small lakes, of which Lake Seliger is the largest, and descends among woods and hills as far as Kalinin, where its current slows and it becomes choked by an enormous quantity of silt.

The Volga changes direction frequently. The most abrupt change is in the Volga Heights where it flows in a big bend south by west around the Zhiguli Mountains. At Volgograd it resumes its course toward the

southeast and flows into the Caspian through the large delta it has built.

The Volga is a slow and majestic river that carries great quantities of water. Its human and economic importance is tremendous; many cities have been built along its course. Because of the danger of floods along the eastern bank, settlements tend to be on the higher western bank. This shore is threatened, however, by the current eroding the escarpment.

The Volga delta has an incredible number of distributaries. During the spring, it looks like a huge mirror of water. In early summer it becomes a stupendous, luxuriant green oasis, but it soon dries up and becomes desolate.

TRIBUTARIES OF THE VOLGA

The Volga receives no fewer than 132 tributaries, some of them very important, such as the Oka from the

west and the Kama from the east. The Oka is 605 miles long. It rises in the Central Russian Upland and is fed by copious springs and by marshes. It flows in a generally northward direction across a vast plain and joins the Volga near Gorky.

The Kama, about 1200 miles long, rises in the low outliers of the central Urals. Its tributaries drain a large part of these mountains. The Kama flows out of the central Urals across steppes and sandy lands, and joins the Volga south of Kazan.

RIVERS OF CISCAUCASIA

Ciscaucasia is drained by the Kuban, Kuma and Terek rivers.

The Kuban is 584 miles long and has a basin with an area of 4480 square miles. It descends from the glaciers along the northern slopes of the Greater Caucasus Mountains and in its upper course runs through narrow gorges and deep, forested valleys. When it reaches the flat steppes, it becomes slow and winding. Here its course is marshy, and, in spring, midsummer and autumn, floods cover large areas. The Kuban flows into the Sea of Azov through a sandy lagoon thirty-two miles long.

The Terek is 367 miles long and has a basin of 48,000 square miles. It rises in the glaciers of the central Greater Caucasus Mountains and has many tributaries which bring it a great deal of water. However, much of its water is lost by evaporation and irrigation when it enters the steppes, and it has difficulty in reaching the Caspian. Its delta is wide and sandy and divides the river into branches.

The Kuma, 360 miles long, rises on the eastern slopes of the Greater Caucasus Mountains. When it reaches the plain it becomes a typical steppe river, with marshy banks and an almost flat bed. In the dry season it becomes a chain of ponds and pools of stagnant water. It reaches the Caspian Sea only in the high-water season.

CRIMEAN RIVERS

Most of the rivers of the Crimea are short, unnavigable streams. The most important river is the Salgir, which runs northwest through the mountains, cutting a deep gorge, and bends eastward as it crosses the steppes. It ends in a lagoon separated from the Sea of Azov by the narrow sand ridge called the Arabat Tongue. In summer, the Salgir often dries up on the steppes.

The European U.S.S.R.: Vegetation

Quaternary glaciation destroyed the original flora of the European U.S.S.R. After the retreat of the ice, plants were once again able to grow, but only a small number of species developed.

THE TUNDRA

In the European U.S.S.R., the tundra belt is narrow; in some favored areas forests even reach the Arctic coast.

In the extreme north, the vegetation is made up of lichens, such as reindeer moss (*Cladonia rangiferina*). On the wetter soils, there is a springy carpet of tender mosses. Brushy and woody vegetation predominates, varying in appearance according to relief and latitude.

The tundra lands between the Pechora River and the Urals have an unusual growth of dwarf willows and birches. These trees never grow above knee height except in low, wet areas, where some willows, such as *Salix canata* and *Salix hastata*, reach a height of four to five feet.

In the deep valleys there is an abundance of herbaceous vegetation. Grasses, such as *Poa annua*, *Rumex arifolius* and the white-flowered *Cerathium-dasuritum*, are most common.

In the northern Urals, mountain tundra prevails, with such species as the eight-petaled dryad, the Alpine veronica, the snow saxifrage and the Norwegian artemisia.



THE TAIGA

Between the tundra and the steppe stretches the forest region—the taiga. In the northwest, the comparatively milder and more humid climate allows the forest to grow north of the Arctic Circle as far as the shores

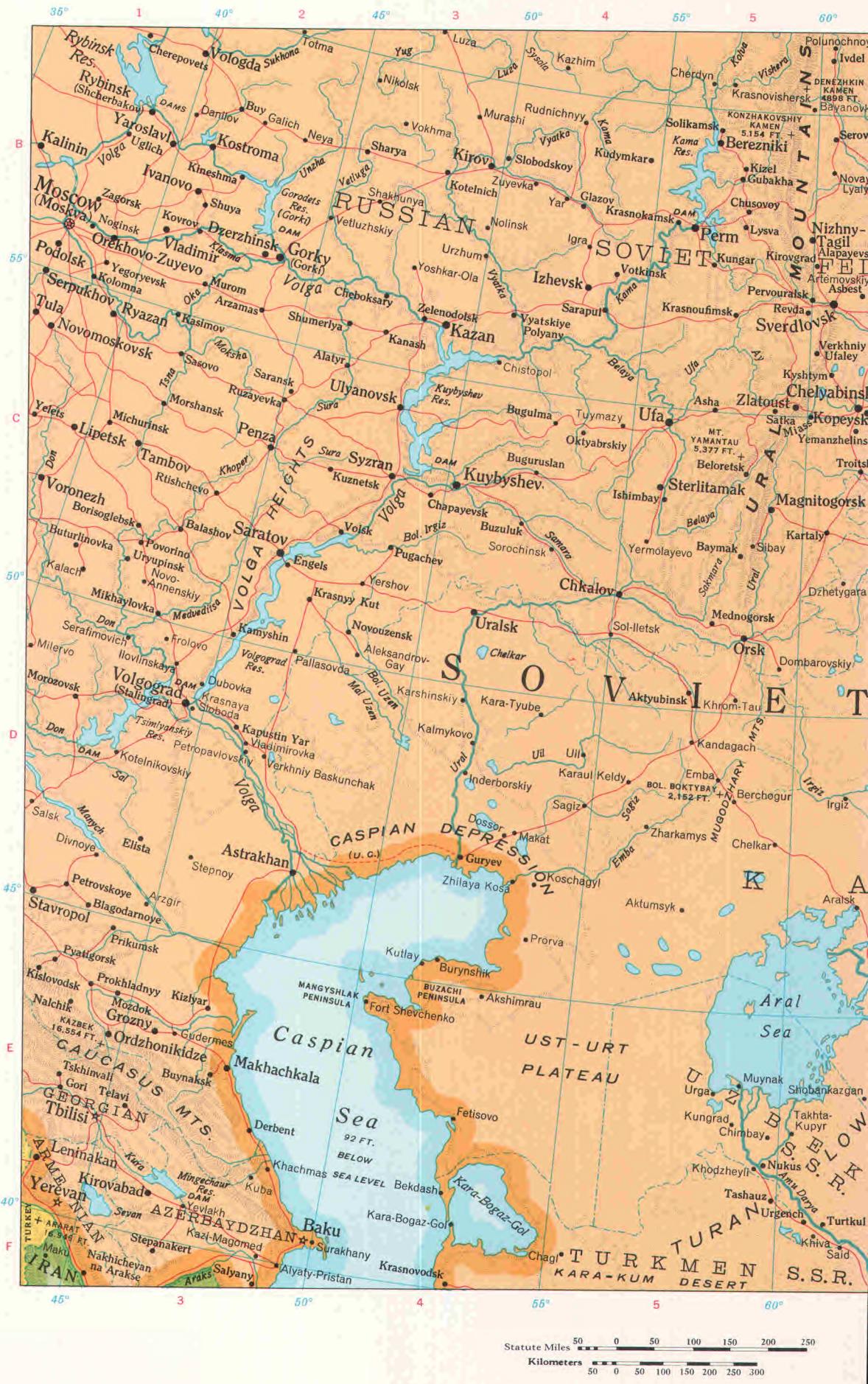
Above and below are shown three aspects of the landscape and flora of the Kazakh S.S.R. This sprawling region extends from east of the Caspian Sea to Sinkiang province in China, and is about twice the size of Alaska. Above: Shifting desert dunes. Below left: a forest of birches. Below right: sparse vegetation on the arid steppes.



SOUTH CENTRAL SOVIET UNION

**SOUTH CENTRAL
SOVIET UNION**
Principal Cities

Pop.—Thousands
97 Aktyubinsk C 5
41 Alapayevsk B 6
35 Alatyr C 3
455 Alma-Ata E 9
129 Andizhan E 8
116 Anzhero-Sudzhensk B11
39 Arzamas B 2
60 Asbest B 6
294 Astrakhan D 3
52 Ayaguz D10
968 Baku C 3
64 Balashov C 2
53 Balkhash D 8
39 Barabinsk B 9
320 Barnaul C10
59 Beloretsk C 5
106 Berezniki B 5
146 Binsk C11
54 Borisoglebsk C 2
61 Bugulma C 4
36 Buguruslan C 4
40 Buturlinovka C 2
55 Buzuluk C 4
83 Chapayevsk C 3
83 Cheboksary B 3
688 Chelyabinsk B 6
92 Cherepovets B 1
153 Chimkent E 7
65 Chirchik E 7
51 Chistopol B 4
260 Chkalov C 4
60 Chusovoy B 5
38 Derbent E 3
163 Dzerzhinsk B 2
67 Dzhambul E 8
90 Engels C 3
80 Fergana E 8
224 Frunze E 8
59 Glazov B 4
33 Gori E 2
942 Gorky (Gorki) B 2
240 Grozny E 3
54 Gubakha B 5
78 Guryev D 4
39 Ishim B 7
54 Ishimbay C 5
332 Ivanovo B 2
40 Ivdel A 6
283 Izhevsk B 4
261 Kalinin B 1
37 Kamen-na-Obi C10
141 Kamensk-Uralskiy B 6
55 Kamyshin C 3
398 Karaganda D 8
33 Kartaly C 6
34 Kasimov C 2
643 Kazan B 3
277 Kemerovo B11
84 Kineshma B 2
252 Kirov B 3
116 Kirovabad E 3
130 Kiselevsk C11
79 Kislovodsk E 2
60 Kizel B 5
33 Kizlyar E 3
105 Kokand E 8
40 Kokchetav C 7
100 Koloma B 1
160 Kopeysk B 6
171 Kostroma B 2
100 Kovrov B 2
54 Krasnokamsk B 5
38 Krasnovodsk E 4
65 Kungar B 5
145 Kurgan B 7
86 Kustanay C 6
806 Kuybyshev C 4
57 Kuznetsk C 3
66 Kyzyl-Orda E 7
40 Lenger E 7
77 Leninabad E 7
108 Leninakan E 2
67 Leninogorsk C10
132 Leninsk- Kuznetskiy C11
156 Lipetsk C 1





73	Lysva.....	B 5
311	Magnitogorsk.....	C 5
119	Makhachkala.....	E 3
68	Margelan.....	E 8
35	Miass.....	C 6
80	Michurinsk.....	C 2
5,032	Moscow (Moskva).....	B 1
73	Murom.....	B 2
87	Nalchik.....	E 2
122	Namangan.....	E 8
338	Nizhny-Tagil.....	B 5
93	Noginsk.....	B 1
107	Novomoskovsk.....	C 1
887	Novosibirsk.....	B 10
33	Novouzensk.....	C 3
39	Nukus.....	E 5
40	Oktjabrskiy.....	C 4
179	Omsk.....	B 8
164	Ordzhanikidze.....	E 2
708	Orekhovo- Zuyevo.....	B 1
176	Orsk.....	C 5
65	Osh.....	E 8
90	Pavlodar.....	C 9
254	Penza.....	C 2
628	Perm.....	B 5
90	Pervouralsk.....	B 5
135	Petropavlovsk.....	C 7
124	Podolsk.....	B 1
34	Pugachev.....	C 3
69	Pyatigorsk.....	E 2
55	Revda.....	B 5
111	Rubtsovsk.....	C 10
35	Ruzayevka.....	C 3
213	Ryazan.....	C 1
181	Rybinsk (Shcherbakov).....	B 1
90	Saransk.....	C 3
68	Sarapul.....	B 4
581	Saratov.....	C 3
39	Satka.....	B 5
155	Semipalatinsk.....	C 10
98	Serov.....	B 6
105	Serpukhov.....	C 1
52	Shadrinsk.....	B 6
64	Shuya.....	B 2
44	Slavgorod.....	C 9
35	Solikamsk.....	B 5
140	Stavropol.....	D 2
111	Sterlitamak.....	C 5
777	Sverdlovsk.....	B 6
148	Syzran.....	C 3
41	Taldy-Kurgan.....	D 9
170	Tambov.....	C 2
37	Tashauz.....	E 5
911	Tashkent.....	E 7
41	Tavda.....	B 7
35	Tayga.....	B 11
694	Tbilisi.....	E 2
47	Tobolsk.....	B 7
249	Tomsk.....	B 11
76	Troitsk.....	C 6
101	Tselinograd (Akmolinsk).....	C 8
345	Tula.....	C 1
150	Tyumen.....	B 7
546	Ufa.....	C 5
205	Ulyanovsk.....	C 3
705	Uralsk.....	C 4
43	Urgench.....	E 6
117	Ust Kamenogorsk.....	C 10
33	Verkhniy Ufaley.....	B 6
154	Vladimir.....	B 2
597	Volgograd (Stalingrad).....	D 2
138	Vologda.....	B 1
62	Volsk.....	C 3
454	Voronezh.....	C 1
59	Votkinsk.....	B 4
406	Yaroslavl.....	B 1
59	Yegoryevsk.....	B 1
78	Yelets.....	C 1
34	Yemanzhelinsk.....	C 6
509	Yerevan.....	E 2
88	Zagorsk.....	B 3
73	Zelenodolsk.....	B 3
60	Zlatoust.....	B 5
161	Zyryanovsk.....	D 10



Machines at work to change the course of a river in a valley of the mountainous Tadzhik S.S.R. This is part of an extensive project to irrigate arid lands. Tadzhikistan, situated in the extreme southeast of Soviet Central Asia, is still largely characterized by deserts and treeless mountain ranges.

THE WOODED STEPPES

To the south of a line running almost due east from Moscow to Ufa at the foot of the Urals is a transition belt between the taiga and the grassy steppes.

The vegetation of this wooded steppe zone is partially a result of deforestation and partially due to the increasing dryness of the climate. The forests, as if reluctant to disappear, penetrate the steppe in closely packed bands to form promontories in a sea of grass. Such are the beautiful forests in the area of Bryansk. These are mixed forests composed of oaks, birches, maples, elms and sometimes beeches. In the grassy spaces, the first steppe plants appear, such as the field violet, the dwarf almond and the meadow sage.

THE STEPPES

The growth of trees in the true steppes is prevented by the small amount of precipitation, the intense evaporation, the winds that constantly blow from the northeast and southeast, the summer heat and the lack of relief. Climate is a more important determinant of plant type than is the soil.

The black-earth soil region of the steppes is almost entirely cultivated; grasses, bulbous plants and little trees predominate. In the fleeting spring many flowers bloom, among them irises, hyacinths, tulips, clematis, white anemones and yellow spring adonis. Toward June, sage paints the meadows a deep lilac. The predominant grayish color of these steppes is caused by the flowering of feather grasses, the most typical plants of the region.

Near the Black Sea and the lower Volga, the countryside becomes more barren. In summer, only the wetter valley floors and the boggy furrows of the streams support a little greenery, such as clumps of thorns, willows, birches and black poplars. They occur in isolated groups among the reeds and marsh plants. In these drier lands, a variety of feather grass gives the meadows an ochre color toward the end of June. Elsewhere, over soils impregnated with soluble

of the White Sea. In this region it begins south of the Kola Peninsula; at the Pechora River its northernmost latitude is about $67^{\circ} 30' N$. The southern border of the forested belt is a diagonal line that extends from Kiev in the Ukraine northwest to Ufa near the Urals.

In general, the forests of Russia are beautiful. Vast open spaces give them an airy appearance. One type of open space is the *msara*, which is composed of reedy and treacherous marshes. Other types are the *pole*, with fertile steppe soil, and the *lyadi* of the Baltic regions. The latter are glades cleared by man and then abandoned.

Deciduous forests predominate over coniferous forests in the northwest. Superb leafy forests grow

around the Gulf of Finland because of the more moderate and humid climate. Farther south, there are oaks, maples, birches and elms growing in thick woods separated by wide clearings. Large oak woods cover the crystalline massif of the Volyn-Podolian Upland in the Ukraine, especially around Zaslavl. Specimens of exceptional beauty are to be found in the Belovezha Pushcha Forest in southern Polesye near the border of Poland. This has been made into a State Reserve, and there are over 930 miles of forests of oaks, hornbeams, aspens and elms.

The area around Moscow has mixed deciduous and coniferous forests. Farther east, there are trees typical of the Siberian forests, such as Siberian larch and the spruce.

salts, halophytic plants (plants which can grow naturally in sandy soil) appear. Among the species are *Gypsophila articulata* and tumbleweeds. Of the trees, only the vella or white willow resists the climate and salty soil. The vella brightens up the avenues and parks of the cities and villages.

The climate becomes progressively drier, and the steppes rapidly give way to deserts. Beyond the delta of the Volga, in the Caspian Depression, desolation reigns. The soils are sometimes clayey, sometimes sandy, sometimes salty, and support only chickweeds and various halophytic plants. Only little oases on the edges of the deserts and some areas of the Obshchy-Syrt, watered by rivulets fed by spring snow-melt, offer the possibility of more varied plant life.

THE CRIMEA

Sparse steppe vegetation prevails throughout much of the Crimea. The mountains have luxuriant forests with oak, hornbeam and beech trees predominating.

In the south, the vegetation is subtropical in character. Here the

cypress, the oleander, the olive, the magnolia and several species of palms may be found.

THE CAUCASUS

THE CAUCASUS LIES BETWEEN THE Black and Caspian seas. Its northern boundary is the Manych Depression, through which flow the Manych and Kuma rivers. In the south are the boundaries of Turkey and Iran. The steppes of Ciscaucasia in the north are generally considered to be part of Europe; this section will deal with that part of the Caucasus south of Ciscaucasia, which is considered to be part of Asia.

Caucasia: The Land

THE GREATER CAUCASUS MOUNTAINS

The backbone of the Caucasus is formed by the Greater Caucasus Range (Bolshoy Kavkaz), which is 750 miles long and from 80 to more than 100 miles wide. First uplifted in fairly ancient times, it contains rocks of all the geological eras. It is composed of a series of imposing chains which sometimes run parallel to each

other and at other times join to form knots. Basins are set deeply in the mountains, like craters, and volcanic cones rise over the chains to dominate the surrounding countryside.

In the northwest, the range parallels the Black Sea coast for about 270 miles. The mountains rise gradually from the sea and attain a modest height. Then elevation suddenly increases and the mountains form a great wall to the north. There are wide valleys, which are isolated by the mountain spurs between them. The rivers have cut deep gorges across these spurs. Along the southern side of the range, deep, narrow valleys open toward the sea and are filled with luxuriant vegetation.

THE CENTRAL RANGE

The central section of the Greater Caucasus Range runs for more than 125 miles from Mt. Elbrus (18,481 feet) to Mt. Kazbek (16,541 feet),

Team leaders on a collective cotton farm in the Uzbek S.S.R., the chief cotton-producing republic of the Soviet Union. During World War II many industrial plants in Western Russia were dismantled and evacuated to Uzbekistan, thus giving the republic's economy a permanent boost.





The luxuriant interior of the Monastery of the Virgins in Moscow. The magnificent gilded wall of icons was built to separate the officiating priest from those attending the service.

both extinct volcanoes. It is split into two great and almost parallel chains. The northern one has been dissected into many separate peaks by the erosive action of streams. It is made up of powerful massifs, dominated by Mt. Elbrus. The southern chain is more compact and of less striking shape. The two chains meet again in the southeast and form a single huge bulwark crowned by isolated massifs, the biggest of which is Mt. Kazbek. In the north, great high plains descend toward the steppes of Ciscaucasia. The northern mountains have long, transverse valleys, wide, closed basins, and a wild and savage appearance. The lower southern slopes are made up of closely locked chains, divided by longitudinal valleys. There are many glaciers and snowfields. Two important passes, Krestovy and Mamison, run through the central part of the Caucasus.

In the southeast a single main chain extends almost to the Apsheron Peninsula on the Caspian. Various secondary chains jut out from it and give the whole system a particular structural form. There are high arid plains, bare and often covered with silt. The lower valleys are wetter and covered by thick pine and beech woods. Still lower down are green meadows.

The range broadens in the north into the high, flat, stony plain of Daghestan, which is cut by deep narrow valleys and canyons. The Sulak River flows across this plain through a gorge that is 15 miles long and 3300 feet deep.

In the extreme eastern part of the range, not far from the Caspian littoral, is the deep Pass of Derbent. The Tatars knew this pass as the Iron Gate, and the Arabs called it the Gate of Gates. Today the railway to Transcaucasia and Iran runs through it.

TRANSCAUCASIA

Extending south from the central Caucasus into the district known as Transcaucasia is the Surami Range. It connects the Greater Caucasus with the Lesser Caucasus (Maly Kavkaz) Mountains. To the west of the Surami Range is the flat, alluvial Colchis Lowland, which is heavily watered in all seasons and has rich soils. To the east of the mountains a

lowland triangle with an area of 13,500 square miles extends toward the Caspian. This is parched, heavily eroded steppe country, and much of it lies below sea level.

South of the Surami Range, with its bordering lowlands, the Lesser Caucasus Mountains stretch like a great wall from the Black Sea to the Caspian. These mountains reach heights of between 10,000 and 12,000 feet.

Beyond these ranges to the south and west is the Armenian Plateau. It is made up of monotonous and arid plains, usually more than 6000 feet high, and there are deep traces of volcanic action. The extinct volcano of Mt. Aragats reaches an elevation of 13,435 feet.

Caucasia: Climate

Differences in altitude and direction of the mountain slopes give the Caucasus a number of varying climates.

On the northern slopes of the Greater Caucasus a continental climate, with 23-27 inches of rain a year, prevails. The southern slopes

have 79-118 inches of rain a year and more moderate temperatures. In these mountains summers are generally hot (77° F.) and winters are usually cold, but are not comparable to the very severe winters of European Russia.

The Surami Range in Transcaucasia brings about notable differences between the lowlands to the east and west. The Colchis Lowland in the west has a humid subtropical climate; Batumi receives over 95 inches of rain a year, most of which occurs in the winter. At Batumi, winter and summer temperatures are mild (43° F. in winter and 74° F. in summer).

East of the Surami Range, a more continental climate prevails. Tbilisi (Tiflis) receives only 19 to 20 inches of rain a year, and the eastern steppes receive even less—at Baku

Vilnius, capital of the Lithuanian S.S.R., is picturesquely situated among wooded hills about twenty-five miles from the Belorussian border. Prior to World War II, Vilnius was one of the chief centers of European Jewish culture. During the German occupation (1941-44), however, the city's Jewish population was systematically annihilated.





the annual rainfall is only 9.5 inches. Summer and winter temperatures are more extreme than in the west.

The Armenian Plateau has a harsh continental climate. Shielded by the Lesser Caucasus Mountains, it has an annual rainfall of less than 14 inches. Temperatures are extreme, even when the altitude is taken into account. Winter temperatures are as low as -13° F. and summer temperatures as high as 104° F.

Caucasia: River Systems

The rivers descending from the southern slopes of the Greater Caucasus Range flow into the Black Sea, and the headwater divide is only about forty miles inland. They have short courses, are torrential, and carry much water. The Kodor and the Ingur are of this type. The latter flows through narrow, steep-walled gorges.

The longest of these rivers is the

Rion, which is formed by numerous mountain torrents. It reaches the Colchis Lowland at Kutaisi and traverses it for 245 miles. It empties into the sea at Poti.

The greater part of Transcaucasia is traversed by two rivers which rise in the south—the Kura and the Araks.

THE KURA

The Kura is 940 miles long and has a basin of 180,000 square miles.

A scene in Siberia's largest city, Novosibirsk, which has been called "the Chicago of Siberia." Like Chicago, Novosibirsk is a giant industrial center and a key transportation hub. The city, situated on the Ob River in southwestern Siberia, was founded as Novonikolayevsk in 1896 and was renamed Novosibirsk in 1925. Its booming population now exceeds 800,000.

It rises in Turkish territory at a height of about 6500 feet and heads northeast into Transcaucasia, where it flows torrentially through the gorges of the Lesser Caucasus. Beyond Tbilisi it bends to the southeast across the steppes and enters the Caspian Sea below Baku. The irrigation basin of Mingechaur on its lower course fertilizes the arid steppes. The Kura has some 400 tributaries.

THE ARAKS

The Araks (Turkish and Persian *Aras*), which also rises in Turkey, is 666 miles long. It forms part of the southern boundary of the U.S.S.R. and in its lower course flows across the eastern steppes of Transcaucasia.

Until 1896-97, the Araks flowed into the Kura, but since then most of its flow reaches the Caspian directly at Kirov Bay. It has a rapid current and is not navigable, but it is used extensively for irrigation.

Caucasia: Vegetation

In the northern foothills of the Greater Caucasus Mountains there are isolated forests of willows and poplars. The forests of the central ranges are not thick and alternate with mountain steppes. On the southern slopes are more extensive forests of oaks and beeches. Above 6000 feet, rich and colorful Alpine vegetation may be found.

In the steppes through which the Kura and the Araks flow, the vegetation is of the halophytic type, plus a few tamarisks and junipers. Along the watercourses are forests of poplars, willows and alders.

There is luxuriant vegetation in the Colchis Lowland and on the western slopes of the Greater Caucasus Mountains. The wet climate has led to the growth of spectacular forests, with gigantic trees and a thick undergrowth made up of



A park scene in Riga, Latvia. Riga is the capital of the Latvian S.S.R., and is an important Baltic port. Two-thirds of Latvia's industry is concentrated in and around the city.

lianas, ferns and mosses. Many areas are in semidarkness and the only sound is that of water falling through gorges that have become buried in an inextricable mass of green trees and plants.

The Lesser Caucasus Mountains support oak and hornbeam forests. On the Armenian Plateau is a covering of feather grass, broken by occasional pine thickets.

SIBERIA

SIBERIA EXTENDS FROM THE URAL Mountains to the Pacific Ocean and from the Arctic Ocean south to the Kazakh S.S.R., Mongolia and Manchuria. The east-west distance is

about 5000 miles and the north-south distance 2300 miles. The total area is 4,956,868 square miles.

Siberia is divided into three large general physical areas: Western Siberia, which is low and flat, Eastern Siberia, which is mostly a plateau area, and the Soviet Far East, the mountainous Pacific coastal region. There are high mountains in the southern part of all three sections, where great folded mountain ranges form arcs around the southern and eastern edges of the Siberian platform.

Western Siberia: The Land

Western Siberia extends from the Ural Mountains in the west to the Yenisey River in the east, and from

the Arctic Ocean south to Kazakh S.S.R.

In ancient times this region was under an ocean which extended from the areas now occupied by the Mediterranean and Black seas to the Arctic. When the water receded, a great plain was left. During the Quaternary period, continental glaciers covered the plain south to 60° N. latitude. A few small tablelands between the Yenisey and Lena rivers were left above the ice.

THE ALTAY MOUNTAINS

The Altay Mountains in the southeast occupy about one-tenth of the whole region. The Altay are high and steep; the tallest peak, Mt. Belukha, is 15,157 feet above sea level. The northwestern Altay are wet and have luxuriant forests and meadows, but in the rain shadow on the south and east the mountain slopes and their bases are arid. Gold, mercury and nonferrous metals are found in the mountains, but the great value of the area is the Kuznetsk Basin (the Kuzbas), which is the richest coal region in the U.S.S.R. and among the richest in the world. This coal basin lies between two north trending spurs of the Altay, the Salair Ridge and the Kuznetsk Plateau. It receives its water supply from the Tom River.

THE WEST SIBERIAN PLAIN

The rest of Western Siberia is one of the world's largest flat plains; it is so flat that the rainfall collects in thousands of little lakes and marshes. The change in elevation between the Arctic Ocean and Barnaul, near the Altay Mountains about 1240 miles to the south, is only 350 feet. The monotony is broken only by *yary* (the higher bank of the rivers, never more than 125 or 135 feet high) and *grivy* (or brows), which are long, low rises. In the south, the relief is characterized by a series of low parallel ridges extending in a north-easterly direction. They are connected by brief chains of crystalline rock, where rich deposits of copper, silver, lead and gold have been found.

The central part has rich and varied vegetation, and surface water abounds. Further north, because of the lack of evaporation, extremely flat terrain and perennially frozen subsoil, the land is waterlogged, acid and unworkable. Along some parts of the northern coast, low ridges give a hilly character to the predominantly flat tundra.





Eastern Siberia: The Land

Eastern Siberia stretches for a maximum distance of 1900 miles between the Yenisey River on the west and the Pacific coast mountain ranges on the east. The maximum distance between the Arctic Ocean to the north and Mongolia to the south is about 1260 miles. It is primarily a plateau region, with high mountains to the south and east.

THE CENTRAL SIBERIAN PLATEAU

East of the Yenisey River, the land rises abruptly and forms a high plain known as the Central Siberian Plateau. This area is cut by deep water courses and is dominated by isolated table mountains, most of which are of volcanic origin. The average elevation is 1000 to 1500 feet, but the Putorana Mountains in the north rise to about 5000 feet.

In the extreme northwest, the Taymyr Peninsula is corrugated by

Kiev. The main entrance to the Economic Exhibition, a showcase of the great industrial and commercial development experienced by the city in recent years. Kiev, situated on the banks of the Dnepr, near its confluence with the Desna, is the major economic center as well as the capital of the Ukraine, and is the third largest city in the Soviet Union, after Moscow and Leningrad.

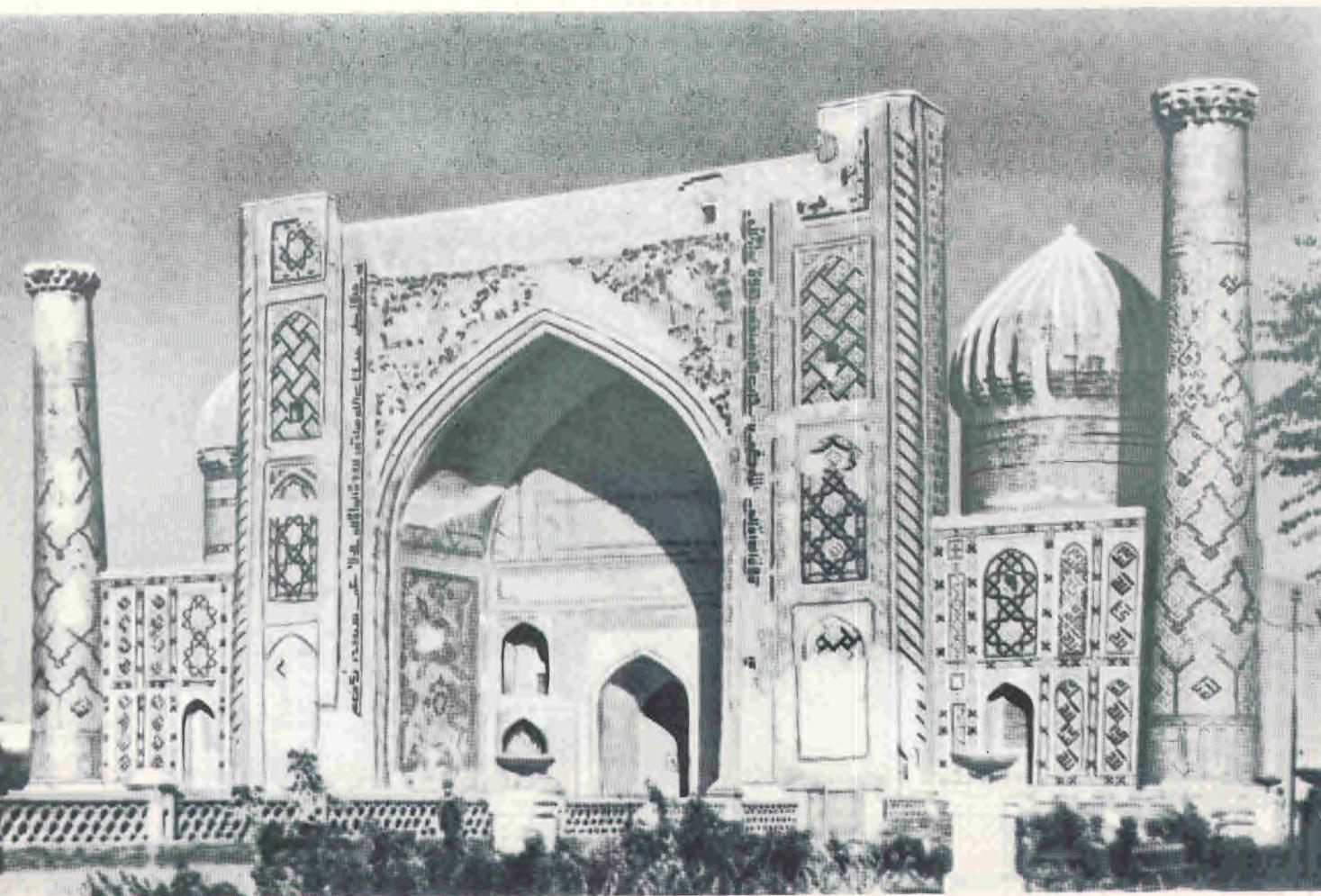
the low, wide Byrranga Mountains. The group of North Land Islands (Severnaya Zemlya), the largest of which are the Komsomolets group, the October Revolution Island and Bolshevik Island, are prolongations of this peninsula. Their height is between 900 and 1800 feet. East of the Taymyr Peninsula, the uplands slope toward the Laptev Sea, an inlet of the Arctic Ocean, in a series of low hills.

THE SOUTHERN MOUNTAINS

In the south, the plateau is bordered by a series of mountain ranges and high plateaus. The westernmost mountains, the Sayan Mountains, reach an elevation of 11,453 feet and extend eastward to the area of Lake Baykal. East of this lake is the area known as Transbaykalia. It consists

of a series of ranges which run in a generally northeast-southwest direction. The most important of these, the Yablonovy Mountains, serves as a border between Eastern Siberia and the Soviet Far East.

North of Lake Baykal and the Yablonovy Mountains is an area of steep mountain chains, narrow valleys and monotonous plateaus. Some of these, such as the Patom Plateau, 5400 feet high, are covered with green pasture for part of the year. The Vitim Plateau, east of Baykal, separates the Baykal depression on the west and the valley of the Olyokma on the east. The Aldan Plateau stands between the Olyokma and the Aldan rivers. This territory has rich deposits of gold, precious stones, mercury, lead, copper and coal. The Lena, the largest river of Eastern



The 17th-century Madrasah, or religious seminary, of Sirdor in Samarkand. This ancient city, holy to the Moslems, is in the Uzbek S.S.R. near the northern border of Afghanistan. According to an ancient Moslem proverb, "In other regions of the world the light descends upon the earth, but in Samarkand it ascends." Today, though still a religious center, the city serves as an industrial and communications hub for the surrounding region.

Siberia, flows in a large bend through the area.

THE NORTHEAST

Further north and east are the Verkhoyansk and Cherskiy ranges. These high mountains have steep slopes and rocky crests and show effects of glaciation.

North of the mainland is the archipelago of Novosibirskiye Ostrova (New Siberia), nine islands lying between the Laptev and East Siberian seas. The largest and highest of the group is Kotelny (1150 feet).

The Soviet Far East: The Land

This region is bordered on the north by the East Siberian Sea and the Arctic Ocean, on the west by the Kolyma Plain and the Kolyma, Stanovoy and Yablonovy mountains,

on the south by Manchuria, and on the west by the Pacific Ocean and its subsidiaries—the Bering Sea, the Sea of Okhotsk and the Sea of Japan. It is a rugged, mountainous area with a much indented coastline, and is 2835 miles long from north to south. In many respects, such as location, climate, vegetation, soils, animals, agriculture, minerals and the spirit of development, this region may be compared with Alaska.

The Yablonovy chain acts as a divide between basins of the Lena and Amur rivers. This long chain, rises to 5280 feet in the peak of Bolshoy Saranakan and the range has great climatic importance because on the west it limits the influence of the monsoons.

Northeast of this chain are the Stanovoy Mountains, which reach an

elevation of about 8000 feet. They have been heavily eroded, and only hard, resistant quartzite masses remain. The eastern arm of these mountains reaches the Sea of Okhotsk and is called the Dzhugdzur Range. This range ends on the coast in a series of steep scarps.

The Kolyma Mountains are farther to the north, between the Kolyma Plain and the Sea of Okhotsk. They descend steeply to the sea, and the coastline has wide inlets.

THE AMUR REGION AND PRIMORYE

The southern part of the Soviet Far East is composed of the Amur region, which is a complex of plains, high plains and mountains, and the coastal area, Primorye. The Amur region extends from the Stanovoy Mountains in the north to the Amur River in the south, and from Transbaykalia in the west to the Bureya Range in the east.

Primorye consists of wide and fertile plains of the lower Amur and Ussuri rivers and a series of parallel

chains, the Sikhote Alin Mountains, along the Sea of Japan coast. These mountains have been reduced by erosion and broken up by deep and narrow gorges.

To the north, beyond the Tatar Strait, lies the island of Sakhalin. It is traversed by two long mountain chains, the easternmost of which rises to 6604 feet.

THE PACIFIC NORTHEAST

In the far north on the Chukchi Peninsula is the Anadyr Range, which forms the end of the eastern Asian mountain system. The low Anadyr plain lying between the mountain chain and the Bering Sea, is a wide corridor through which the Anadyr River flows and separates the highlands in the northwest from the Koryak Mountains. The Koryaks extend along the Bering Sea and are related to the mountains of the Kamchatka Peninsula, from which they are divided by a low isthmus.

The Kamchatka Peninsula, roughly the same size as Italy, is an ancient land that has been worn down by

erosion. There are about sixty volcanic peaks on the peninsula, of which about ten are active. When Mt. Stubel exploded in 1907 its ash traveled 480 miles. Kluychevskaya, 15,912 feet, is the largest volcano on the peninsula. Its snow-capped cone has an irregular shape. When it erupts, the rumblings are heard 200 miles away.

The Kuril Islands are a prolongation of Kamchatka and consists of thirty-five volcanic islands. There are many active volcanoes above 6000 feet in height. Their cones are snow covered, and the contrast between the white and the pine forests on their slopes is breathtaking.

The volcanic islands in the Bering Sea, known as Komandorskiye Ostrova, are also part of the U.S.S.R. So are Wrangel and Herald Islands, north of the Chukchi Peninsula.

Siberia: Climate

Siberia has a continental climate with cold, dry winters and warm,

fairly dry summers. The Pacific coast area has a modified and more marine type of climate, which is milder and has higher rainfall and humidity.

No part of the Soviet Union has such climatic extremes as Siberia. This is due to its northerly location and to the direction of the mountain ranges, which shelter it from the western winds which have some moderating effect in the European U.S.S.R. and leave it exposed to the Arctic.

PRECIPITATION

Precipitation is sparse in most of Siberia, and though snow covers the ground for long periods every year, it is rarely thick, especially in Eastern Siberia. There are only twenty-seven days of snow a year at Irkutsk near Lake Baykal and nine at Blagoveshchensk in the Altay region.

Snow is more abundant in Western Siberia, and very abundant

A village perched on a rocky slope in a mountainous region of the Daghestan A.S.S.R. in the northern Caucasus. Daghestan, which means "mountain country," is situated on the western shore of the Caspian Sea. Its inhabitants, whose principal occupations are agriculture and stock raising, belong to more than thirty ethnic groups.



in the coastal regions bordering the Sea of Okhotsk and in Kamchatka, which is one of the most snowy parts of the world.

SEASONS

The Siberian winter is long and cold and the summer is short and hot. Spring and autumn hardly exist. Partially because of the dryness, there are extreme temperatures. In some years the temperature variation has been as much as 180° in Eastern Siberia.

The expression "Siberian cold" is proverbial. Verkhoyansk, in

Eastern Siberia, has registered as low as -93° F. and is considered to be the coldest place in the settled world. Oymyakon, a little farther south, challenges this title. At the opposite extreme, Tomsk, in Western Siberia, has registered a summer temperature of 104° F.

The Siberian winter is not without its charms. The air is dry, clear and calm. There is never a breath of wind, and the sky is cobalt blue.

In April, the rivers begin to thaw, and since their northern outlets are still frozen, the waters swell and flood. As the snows melt, streets

and roads become seas of chocolate-colored mud. The surface soon dries, however, and summer arrives with its hot temperatures and long hours of daylight. There are sometimes sudden rain or dust storms, and mosquitoes and other insects abound.

Night frosts and snow flurries occur at the end of August, and the rivers contain cakes of ice by the end of September. Soon winter descends, silent and glacial, over the whole of the region.

THE MONSOON AREA

The Amur region and Primorye have a special monsoon type of climate. In winter, the temperature can fall to -13° F. in January, and there is much snow. From 85 to 90 per cent of the rain falls between April and November, and summer is hot, wet and oppressive. Moisture does not evaporate, and everything becomes covered with rust, verdigris and mold. For weeks at a time, thick mists hide the sun. Sometimes these mists suddenly rise from the sea, even on clear days, and soon become a drizzle that may last for two weeks. Heating units are kept on in libraries and museums during the summer in order to combat the high humidity.

In August, the weather clears, though there is always the threat of typhoons in this season. The most beautiful months in this area are September and October, which are clear, calm and dry.

Siberia: River Systems and Lakes

The rivers of Siberia rival the great rivers of the world in length and the size of their basins. Almost all flow from south to north, and their northern outlets are frozen most of the year. This causes considerable flooding in the spring, when the rivers swell with waters from southern thaws.

The rivers are small and irregular at their sources and become monotonous and wandering in their middle and lower courses. Since there is little evaporation, vast marshy areas occur beside the rivers. Most Siberian rivers flow toward the Arctic Ocean, the main exception being the Amur which flows toward the Pacific.

Modern buildings on Gorky Street in Moscow. Since World War II, Moscow has engaged in a huge program to replace structures destroyed during the war and to meet the needs of a booming population of more than five million people.





A view of part of the Exhibition of Economic Achievements, opened in 1954, north of Moscow. The Exhibition, a permanent and extravagant affair, is replete with parks, gardens, fountains, woods and areas for agricultural experiments.

THE OB

The major river of Western Siberia is the Ob. It rises at the confluence of the Biya and the Katun in the Altay region. Below Tomsk it receives the waters of the Tom and at Khanty-Mansiysk it is joined by the Irtysh. There is an immense marshy region of 100,000 square miles between the Ob and the Irtysh, known as the Sea of Vasyugan, or Vasyuganye. In summer it is impassable, but in winter when it is frozen, it may be crossed. Then the Ob flows through the taiga, and east of Salekhard, into the broad Obskaya Guba, or Gulf of Ob, which is 600 miles long and between seventy and eighty miles wide. The Ob is 2433 miles long, and its basin has an area of 2,000,000 square miles.

The Ob has always had enormous importance for the inhabitants of Western Siberia, but it is frozen up to six months a year and is difficult

to navigate. As it is fed by melt-water from the Altay and the plains, its level rises in May and June. In its lower reaches, the water turns red in autumn and acquires an unpleasant smell. Fish die in this water.

The Ob is used for hydroelectric power and irrigation. A huge artificial basin has been constructed to collect its waters, and nine hydroelectric stations have been built. The largest are at Novosibirsk and Kamen. The river is also used to irrigate the dry steppes of Kulunda in the south. A second artificial basin with an area of 72,000 square miles has been constructed below Novosibirsk near the Kuznetsk Basin.

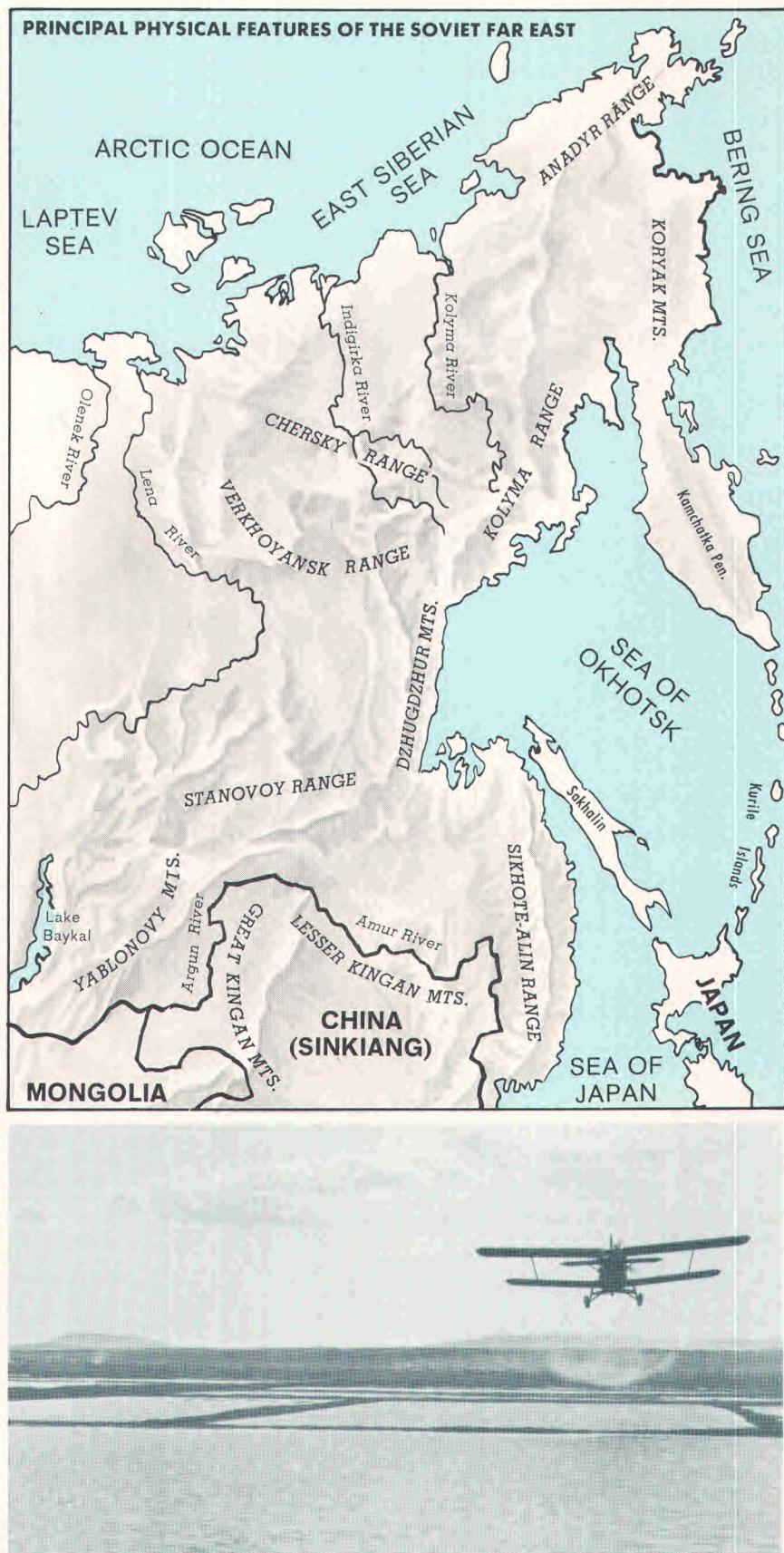
THE IRTYSH

A tributary of the Ob, the Irtysh, rises in the Altay Mountains in

China, where it is called the Chorny Irtysh (Black Irtysh). It flows through the Kazakh S.S.R. and enters Western Siberia below Omsk. After a course of 1844 miles, it reaches the Ob at Khanty-Mansiysk. Its basin has an area of about 130,000 square miles, and its principal tributaries are the Tobol (1042 miles), which rises in the Urals, and the Ishim (1123 miles), which rises in the Kirghiz steppes. Hydroelectric works have been built on the Irtysh in the Kazakh S.S.R.

THE YENISEY

The Yenisey is named from a Tungu word, "Yoanissei," which means "great water." It rises near Kyzyl in the Western Sayan Mountains from the confluence of the two headwater streams, the Great (Bolshoy) and the Little (Maly) Yenisey. The latter rises in Mongolia, where



A small biplane sows rice onto a sprawling sovkhoz, or state-operated farm. Rice cultivation is widespread in the Soviet Far East and also in irrigated zones of the Crimea, the Caucasus and Soviet Central Asia.

it is known as Shishkit Gol. In its upper course there is a series of violent rapids, but after that the river enters a forest and prairie region and becomes navigable. Farther north it is joined by three branches of the Tunguska River—the Verkhnyaya (or Angara), the Podkamennaya and the Nizhnyaya—which add greatly to its volume. In the tundra its main branch is from two to three miles wide. Its total length is 2364 miles, and it flows into the Kara Sea through a long, narrow, island-filled estuary.

The Yenisey marks the boundary between two distinct regions, the West Siberian Plain to the west and the Central Siberian Plateau to the east. Its two banks are very different. The eastern bank is high, rocky and covered with forests, and the western one is low and covered with grass. Even though ice blocks navigation for five months of the year, the river's economic importance is increasing because it flows through regions rich in minerals.

LAKE BAYKAL

Lake Baykal lies in a faulted trench to the east of the Eastern Sayan Mountains. The mountain system that rings the lake is broken to the south by the Selenga Valley and to the north by the Angara Valley.

The surroundings of Lake Baykal are wild and imposing, and its banks are deeply indented. It has an area of 12,150 square miles and a depth of 5700 feet, making it the deepest inland body of water in the world. The region is a notable seismic district and is disturbed by violent earthquakes. In 1826, three villages on the shores of the Selenga delta sank and disappeared in the lake.

In October its water temperature is higher than that of the atmosphere, and the lake is covered with mists. These mists are dissipated in November by the *sarma*, a strong wind that blows from the northeast, accompanied by violent storms.

THE LENA

The Lena, which rises a few miles from Lake Baykal, is a typical high plains river. It flows between narrow and rocky banks, as do its tributaries the Vitim and the Olyokma, which rise in the Yablonovy Mountains, and the Aldan, which rises in the Stanovoy Mountains. These rivers

Tea cultivation, although largely limited to Georgia and Azerbaijan in Transcaucasia, is a thriving Soviet industry. The U.S.S.R. is one of the world's leading producers of tea, but only a small percentage is exported beyond the borders of the Communist bloc.

carry large quantities of silt down from the high plains to the valleys. The silt forms sand bars and islands.

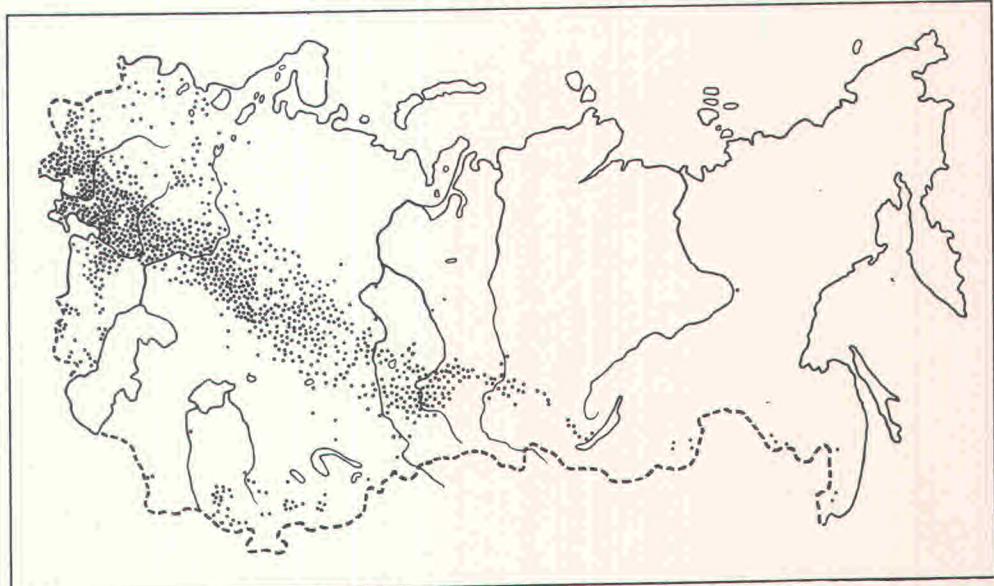
In the north, the Lena flows through the wide Yakutsk Basin, which is one of the coldest and most arid regions of Siberia. After it has received the waters of the Vitim and the Olyokma, the Lena is six-and-one-half miles wide in the alluvial plain of Yakutsk. After the Aldan and the Vilyuy have entered it, it increases greatly in size. It flows into the Laptev Sea through a huge delta about 170 miles wide. Its total length is 2648 miles.

THE AMUR

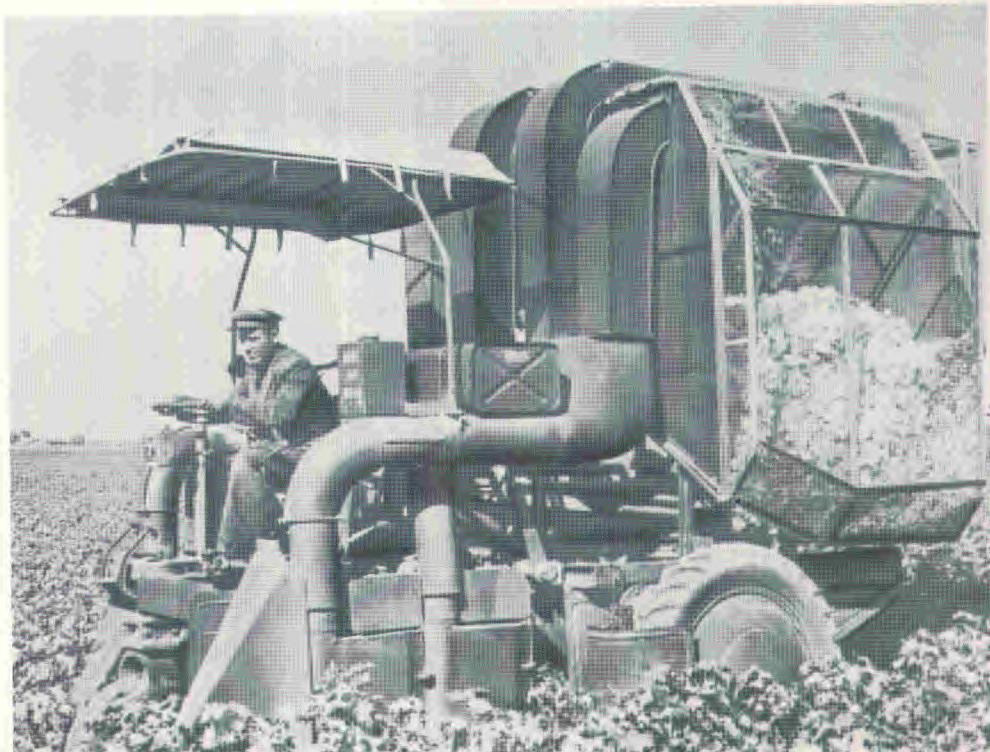
The greatest river of the Soviet Far East is the Amur, 1767 miles long. It is formed by the union of the Shilka and the Argun, which rise in the mountains of Transbaykalia. For much of its course it is the frontier between the Soviet Union and Manchuria.

Its banks are high and rocky but sometimes flatten out into broad flood plains. It flows southeastward through large forests until it is joined by the Zeya and the Bureya. Then the valley widens, and the river flows between low hills until it reaches the Little Khingan defile. After this it divides into numerous channels, especially on the Khabarovsk Plain, where the Sungari and the Ussuri flow into it. The Amur empties into the Tatar Strait between Primorye and Sakhalin Island. The bay into which it flows is surrounded by imposing heights.

The Amur has high water during the summer because of the abundant rain that falls along its course. It used to damage the fertile valleys through which it passes, but the Soviet and Chinese governments have carried out joint works to control it. About seventy hydroelectric



Distribution of Wheat



A cotton-picking machine at work on a kolkhoz, or collective farm, in the Uzbek S.S.R. in Soviet Central Asia. Uzbekistan produces more cotton than any other federated republic, and contains about 60 per cent of all the cotton-growing land in the Soviet Union.

stations are being built along its course. Their power will enable the immense mineral resources of the Amur region to be exploited.

In the Northern Pacific area the most important rivers are the Kolyma, which flows northward into the East Siberian Sea, and the Anadyr and the Kamchatka, which flow into the Bering Sea. These form the principal drainage basins of the region.

Siberia: Vegetation

Siberian vegetation depends almost entirely on the climatic conditions. The principal regions may be classified as tundra, taiga and steppe.

THE TUNDRA

The tundra is more extensive in Siberia than in any other part of the Soviet Union; it reaches as far

south as 60° N on the Kamchatka isthmus. A characteristic of the region is *merzlota*, permanently frozen subsoil.

Because of the extremely low winter temperatures and thin snow cover, the *merzlota* is deep, often reaching down 650 feet. Only a thin top layer of soil thaws during the brief summer, and vegetation is meager, restricted for the most part to lichens, mosses and low shrubs. In Western Siberia, however, there are occasional meadows of shallow-rooted, bright flowering plants.

THE TAIGA

South of the tundra is the taiga, which occupies most of Siberia. It stands on acid peat soil and is made up of dense forests of spruce, Scotch pine, Siberian larch and fir, with few clearings. There are vast marshes in the forests of Western Siberia, and

these are surrounded by pines, firs and groups of birches.

The taiga becomes strikingly beautiful in the Soviet Far East, which is wetter. Oak, lime, maple, ash and nut trees are found in the southern part of this region. The undergrowth is richer, and includes lilac, jasmine and wild grapevines.

On Kamchatka, the forests are luxuriant. The natives give the name *slanets* to the woods covering the Pacific slopes. There are tall larches and birches, towering over dwarf cedars and rhododendrons. In the lower Ussuri region, the flora begins to resemble that of Manchuria and Japan. There is rich vegetation around the stagnant pools and lakes, and the *Euryale ferox*, a water lily with enormous leaves (about four feet in diameter), is striking.

THE STEPPE

South of a line drawn roughly between Sverdlovsk, Omsk and Barnaul, in the southwest corner of Siberia, is the largest steppe region. The principal soil is the fertile *chernozym*. Hardy bulbous plants and little bushes grow in this area, but grass dominates, especially feather grass, wild oats and wormwood. In places where there is saline soil, halophytic plants may be found.

In spring, the steppe takes on the appearance of a brightly colored, flowering meadow; in summer, it becomes grayish and yellowish, and looks desolate. In the valley bottoms and the damper bogs, where the snow waters last longer, willows, black poplars, maples, oaks and hawthorn bushes grow.

Steppe vegetation also occurs in Transbaikalia in Eastern Siberia, and in the lower Amur region.

SOVIET CENTRAL ASIA

SOVIET CENTRAL ASIA HAS AN AREA of 1,538,840 square miles. The western border of the region is the eastern edge of the Volga delta and the Caspian Sea. Along the southern border are Iran, Afghanistan and China. China is also the eastern boundary. The northern boundary is the Russian S.F.S.R.

It is a land of contrasts, containing both the highest and the lowest points in the U.S.S.R. Wide areas are below sea level, and there are also monotonous, dry, high plains, harsh mountain ranges, gleaming glaciers,





An open flower market in Moscow. Many farmers use extra plots of land to cultivate flowers and other products, which they are allowed to sell on the open market for a profit.

fertile valleys and oases, and sandy deserts. Three fourths of the territory is flat, monotonous and unchanging; much of it is unsuitable for human habitation.

The Land

In the north and west of the area the landscape is generally flat, with occasional outcrops of fairly ancient rock. Along the north and northeastern shores of the Caspian Sea lies the Caspian Depression, which descends at points along the shore to 85 feet below sea level. Its flat surface is interrupted only by low mountains

on the Mangyshlak Peninsula.

The desert steppes of the Caspian region are separated from the vast Turan Lowland to the east by the Mugodzhary Mountains, a southern spur of the Urals, which reach a height of 2145 feet.

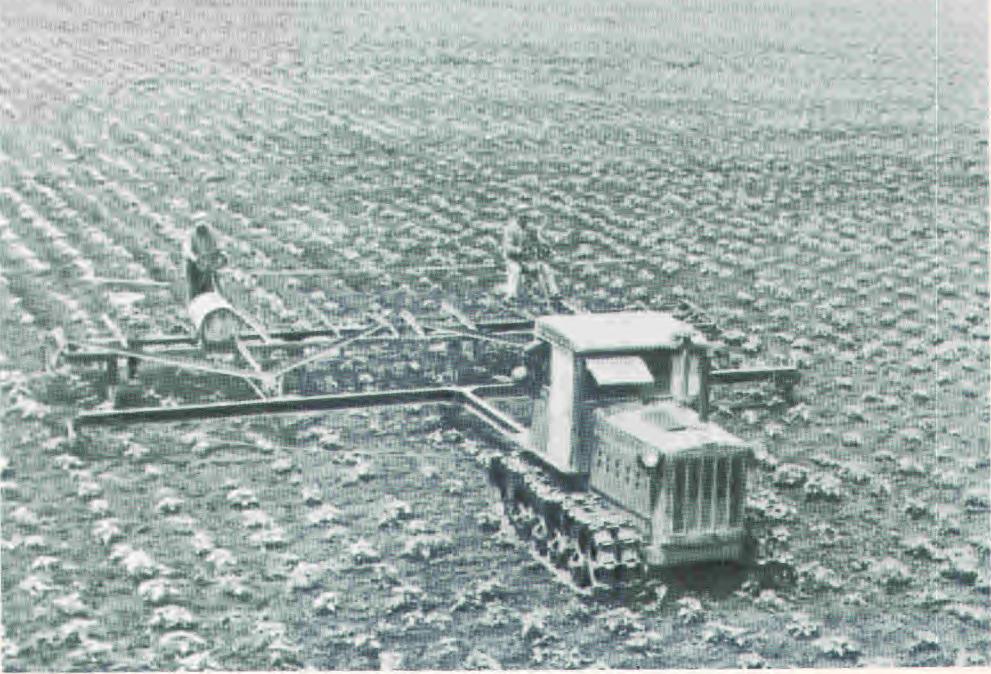
THE UST-URT PLATEAU

South of the Mugodzhary Mountains and west of the Aral Sea is the Ust-Urt Plateau, a barren, waterless desert tableland. It rises to an eleva-

tion of around 800 feet in cliff-like escarpments and has an area of 62,000 square miles.

THE TURAN LOWLAND

In the upper Turan Lowland, east of the Mugodzhary Mountains, is the Turgay Region. Here mesa-like plateaus rise as high as 600 feet above the surrounding lowlands, and there are strips of black, fertile earth. In the east, the land rises to the Kazakh



Cultivation of sunflowers. Sunflower seeds are a popular delicacy throughout the Soviet Union, and their production is especially widespread in the Ukraine and parts of the Russian S.F.S.R. Modern technological methods, plus the rich, fertile soil of the sunny steppes, combine to produce enormous harvests of these plants.

Hills. In the south, the Turan Lowland becomes a vast desert region.

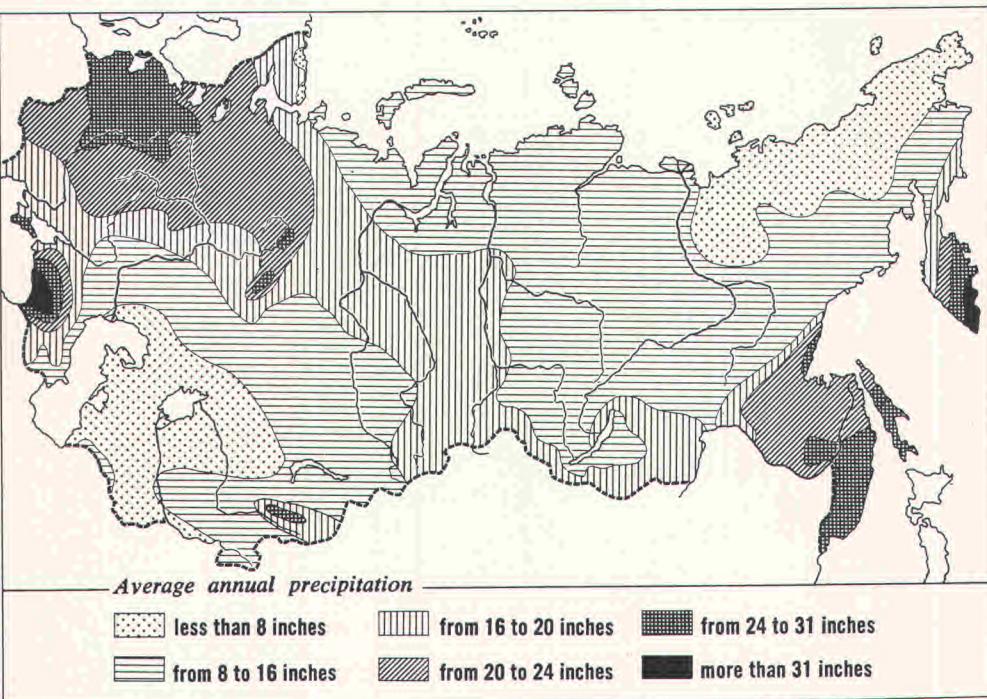
DESERTS

The Kyzyl-Kum desert lies south-east of the Aral Sea between the Syr Darya and Amu Darya rivers. Its surface is mainly red alluvial sand and it is full of dunes and hollows. The center and south of the desert are less uniform because of a series of mountains of the Tertiary period, which rise like reefs in a sea of sand and have little springs at their bases.

The Bet-Pak-Dala, also called the Golodnaya (hungry) Steppe, lies east of the Kyzyl-Kum desert, beyond the Syr Darya. It is about 3900 square miles in area. There is no surface water, and there are no trees except for occasional willows and black poplars, but the loess-like soil could grow crops if irrigated. The Chu River on the south divides it from the Muyun-Kum Desert.

The valley of the Amu Darya divides the Kyzyl-Kum from the Kara-Kum, which is a desert of black sands extending south almost to the border of Iran. In the north, it is a rocky high plain with a monotonous appearance, but its scarp, which is from 230 to 260 feet high, descends abruptly in the southern part, where sand predominates. It is yellow in some places, reddish in others and gray elsewhere. It is easy to find *takyr*, deep, damp caves, where water is available. Some of these caves are very large, more than 24 miles long, and about 150 feet below sea level.

There are also many *hor*, muddy depressions, that are miraculously wet even in summer, and are therefore filled with rushes.



South of the Kara-Kum is the Kopet Dagh Range (9000 feet) along the Iranian border. At the foot of this range is a narrow belt of steppes and oases.

THE KAZAKH HILLS

In the north, east of the Turan Lowland, are the Kazakh Hills, a series of low, deeply eroded ranges and many separate hills of ancient, granite rock. The highest peak in the area is Kyzyl-Rai (4800 feet). In the south is Lake Balkhash; in the east, spurs of the Altay Mountains.

The valley of the Irtysh and the depression of Lake Zaysan separate the Altay from the Tarbagatay Range, a long granite outcrop with many springs and lakes, which rises to an elevation of 8400 feet.

Farther southeast, separating the Tarbagatay Range from the beginnings of the Tien Shan mountain system, is the Dzhungarian Gate, a historic route to the Turan Lowland. This pass was used by Ghengis Khan and numerous other invaders.

THE TIEN SHAN MOUNTAIN SYSTEM

The Tien Shan system forms the most extensive portion of the mountains of Central Asia. It is composed of a number of ranges with a general east-west direction. Many of the individual ranges have the words *ala-tau* (mottled mountain) added to their names, descriptive of the isolated patches of permanent snow on their peaks. The individual crests are separated by wide, high valleys, which are rich pasture and agricultural lands.

The northernmost range is the Dzhungarian Ala-Tau, a chain with very high peaks (16,550 feet). These mountains are covered with perennial snows, and when the thaw starts it waters the high and rich pastures in the valleys. This chain is separated from the Trans-Ili Ala-Tau Mountains (16,027 feet) to the south by the valley of the Ili River. The countryside is rich in water and vegetation.

A structural valley divides the Trans-Ili Ala-Tau from the Kungey Ala-Tau, which also has peaks higher than 16,000 feet. Below this range is Lake Issyk-Kul, a large mountain lake which lies 5193 feet above sea level. South of this lake is the Terskey Ala-Tau Range (16,440 feet).

In the east, along the Soviet-

Chinese border, stands Pobeda Peak. It is the highest peak in the Tien Shan system (24,406 feet), and it forms one end of the great mountain arc which includes the Kungey Ala-Tau, continues west with the Kirghiz Range and ends with the Kara Tau Range north of the Syr Darya River. The Fergana Mountains, which extend south from the center of this arc, form the southwestern boundary

of the Tien Shan system. The waters from these mountains irrigate the beautiful Fergana Valley, one of the most fertile areas in Soviet Central Asia.

THE PAMIR-ALAY SYSTEM

The Pamir-Alay mountain system begins south of the Fergana chain with the Alay Mountains. They have a fairly even summit level of about

Peasant girls load baskets of cherries in an orchard in the rich agricultural Moldavian S.S.R. This small republic, somewhat larger than the state of Maryland, is situated between the Ukraine and Romania.





The domes of an Orthodox cathedral tower over the old residential area of Tallinn, capital of the Estonian S.S.R. The city is renowned for its many picturesque old buildings and towers, and also for its medieval city wall. Located on the Gulf of Finland, an inlet of the Baltic Sea dividing Estonia from Finland, Tallinn is a large and convenient port, and an important industrial and cultural center.

13,100 feet, and are noted for the infrequency and great height of their passes. Below the mountains lies the Alay Valley, which has an average height of about 9800 feet, and in good seasons is covered with rich vegetation.

South of the Alay Valley is the Trans-Alay Range. It is an enormous barrier of red sandstone, which has perennial snows and many glaciers. In its eastern section stands Lenin Peak (23,383 feet). In this area are glaciers rivaling those of the Himalayas. The Fedchenko Glacier, about 50 miles long and 2½ miles wide, is one of the longest mountain glaciers in the world.

PAMIR

South of the Trans-Alay Range lies Pamir, called by the natives the "roof of the world." In the east consists principally of a series of high plateaus, separated by low ridges. Most of this area is essentially a high altitude desert, with little rainfall or vegetation. In the northwest it rises to 24,590 feet at Communism Peak, the highest point in the U.S.S.R.

Soviet Central Asia: Climate

Soviet Central Asia has a very dry, typically continental climate. Only in the mountains and their

valleys does the rainfall exceed sixteen inches a year. In much of the area, the average is from four to five inches. This is less than in many parts of the Sahara Desert.

The lack of rainfall is caused by the prevailing winds, which blow from the north and northeast. They bring polar air masses which decrease in humidity as they move south and carry little potential rainfall. These winds also have a great effect on temperature, which can rise or fall as much as 86° F. in a few hours. The polar air produces winter temperatures below freezing throughout the area, except in the extreme south and southwest.

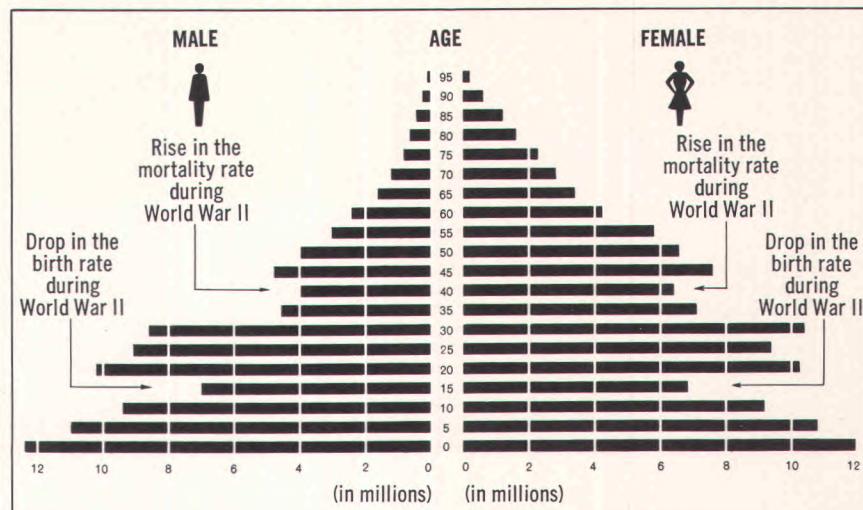
In the Turan Lowland, the summers are long and hot. Temperatures often reach 100° F., and 145° F. at Tashkent and 148° F. in the Kara-Kum desert has been recorded in

July. The dry winds from the north create sandstorms in the desert and sometimes raise fine dust covers which blot out the sun.

The area at the foot of the mountains and in the valleys have a more moderate climate, but in the mountains the climate again becomes extreme. Frosts occur in the higher elevations even in July. The temperature ranges from as low as -49° F. in the winter to around 60° F. in the summer. Great variations exist between those areas exposed to the sun and those in the shadow. Precipitation also varies. It can be as high as 59 inches a year on exposed slopes and as low as 1.6 inches on sheltered slopes, such as those in Pamir.

Soviet Central Asia: Seas, Lakes and River Systems

The mountain systems surrounding the Turan Lowland on the south and east, suggest that there might be a strongly developed river system. This is not so. Central Asia lacks watercourses that reach the open



Composition of the Soviet Population in 1959

sea. The larger rivers flow into vast inland-sea basins, and the lesser ones either disappear in the sand or flow into marshes and swamps.

Among the rivers of the northwest are the Ural and the Emba, which empty into the Caspian Sea. The

Irigis and the Turgay flow across the Turgay tableland and into a salt lake north of the Aral Sea. All these rivers have few tributaries and have high water only during the spring thaw. During the rest of the year they are sluggish and shallow.

Fruit market at Irkutsk in Siberia near the southwest tip of Lake Baykal. Centrally located on the right bank of the Angara River, at the junction of various transport routes east, south and north, Irkutsk is the commercial and cultural center of the Irkutsk Region.



South of the Kara-Kum desert are a series of oases, the most important of which are watered by the Murgab and Tedzhen rivers. These rivers rise in the mountains to the south and dry up in the desert. Important irrigation work has been done in this region.

THE ARAL SEA

Aral means islands in the local language, and the blue waters of the Aral Sea certainly suggest an island in the sea of sand. It has an area of 24,653 square miles and lies in the western part of the Turan Lowland, surrounded by low rises and clayey and sandy deserts. Its average depth is 55 feet, but near the western shore it reaches a depth of 223 feet. Salinity is low—1.03 per cent. Its waters have a number of small islands near the eastern shores. To the north and west are larger islands.

SYR DARYA

The Syr Darya rises in the Tien

Shan system at the confluence of the Naryn and the Kara Darya, two fairly big rivers that provide water for the Fergana Valley. A large stream when it leaves the Fergana Valley, it turns northwest through the desert, where much of its water is absorbed and its flow is slowed. Its course is uncertain, and it divides into several branches. Its total length is 1327 miles, and it flows through a delta into the northeastern side of the Aral Sea.

AMU DARYA

The Amu Darya, 872 miles long, also flows into the Aral Sea. It is fed by the snows and glaciers of the Alay-Pamir system and is formed by the junction of the Pyandzh and Vakhsh rivers. After it leaves the mountains and enters the desert, its rate of flow is reduced, and it picks up silt, part of which is deposited on the banks and part carried to the Aral. The Amu Darya often spreads out over its low banks,

Two Russian girls display the colorful, traditional costumes worn on festive occasions in rural Russia. Today the rural population of the U.S.S.R. comprises just over half the total population. This is in sharp contrast to pre-Revolutionary days, when well over 80 per cent of the people lived in rural areas.



AREA POPULATION
(Sq. miles)

REPUBLICS OF THE U.S.S.R.

1. Armenian S.S.R.	11,500	1,763,048
2. Azerbaydzhani S.S.R.	33,100	3,697,717
3. Belorussian S.S.R.	80,150	8,054,648
4. Estonian S.S.R.	17,400	1,196,791
5. Georgian S.S.R.	29,400	4,044,045
6. Kazakh S.S.R.	1,063,200	9,309,847
7. Kirghiz S.S.R.	76,000	2,065,873
8. Latvian S.S.R.	24,900	2,093,458
9. Lithuanian S.S.R.	25,200	2,711,445
10. Moldavian S.S.R.	13,000	2,884,477
11. Russian S.F.S.R.	6,501,500	177,534,315
12. Tadzhik S.S.R.	55,000	1,979,897
13. Turkmen S.S.R.	187,200	1,516,375
14. Ukrainian S.S.R.	222,600	41,869,046
15. Uzbek S.S.R.	157,300	8,105,704
U.S.S.R.		TOTAL: 208,826,650

RUSSIAN S.F.S.R. 6,501,500 177,534,315
REGIONS

Amur	139,000	717,514
Archangel	229,400	1,275,839
Astrakhan	37,200	701,974
Belgorod	2,932	1,226,328
Bryansk	13,400	1,549,945
Chelyabinsk	33,900	2,976,625
Chita	168,200	1,036,387
Gorky	29,100	3,590,813
Grozny	12,700	280,000
Irkutsk	301,900	1,976,453
Ivanovo	9,500	1,322,152
Kalinin	25,500	1,806,787
Kaliningrad	6,100	610,885
Kaluga	11,600	935,852
Kamchatka	490,425	220,753
Kemerovo	36,900	2,785,906
Kirov	47,000	1,916,493
Kostroma	22,400	919,999
Kubyshev	20,800	2,258,359
Kurgan	27,500	999,170
Kursk	19,615	1,483,305
Leningrad	32,850	4,566,187
Moscow	18,500	10,948,584
Murmansk	57,760	567,672
Novgorod	20,750	736,529
Novosibirsk	69,000	2,298,481
Omsk	53,800	1,645,017
Orel	12,200	174,000
Penza	16,700	1,509,566
Perm	65,950	2,992,876
Pskov	12,240	951,866
Ryazan	18,200	1,444,755
Rostov	40,350	3,311,747
Sakhalin	29,700	649,405
Saratov	39,500	2,162,751

POPULATION: UNION OF SOVIET SOCIALIST REPUBLICS

	AREA (Sq. miles)	POPULATION		AREA (Sq. miles)	POPULATION		AREA (Sq. miles)	POPULATION
Smolensk	18,900	1,142,969	UKRAINIAN S.S.R.	222,600	41,869,046	Gorno-Badakhshan		
Sverdlovsk	70,550	4,044,416	Cherkassy	7,992	1,503,254	Autonomous Region	23,600	73,000*
Tambov	13,250	1,549,001	Chernigov	12,200	1,553,773	Kulyab	4,600	190,000*
Tyumen	526,300	1,092,126	Chernovtsy	3,200	774,121	Leninabad	9,400	666,000*
Tomsk	121,400	746,802	Crimea	10,000	1,201,517	KIRGHIZ S.S.R.	76,000	2,065,837
Tula	9,300	1,920,308	Dnepropetrovsk	12,590	2,704,783	Dzalal-Abad	9,200	27,300
Ulyanovsk	14,400	1,117,359	Donetsk	10,230	4,262,048	Frunze	6,000	804,000
Vladimir	10,350	1,402,371	Drogoobych	3,800	847,000*	Issy-Kul	16,300	223,000*
Vologda	56,900	1,307,531	Ivano-Frankov	9,500	1,094,639	Osh	17,000	871,000*
Volgovgrad	47,500	1,853,928	Kharkov	12,000	2,520,129	Tyan-Shan	21,200	136,000*
Voronezh	26,400	2,368,740	Kherson	10,600	824,167	AZERBAYDZHAN S.S.R.		
Yaroslavl	14,250	1,395,627	Khmelnik	11,070	1,611,412	Nagorno-Karabakh	33,100	3,697,717
TERRITORIES			Kiev	15,900	2,823,434	Autonomous Region	1,700	131,000*
Altay	101,000	2,683,231	Kirovograd	9,600	1,217,929	Nakhichevan	2,100	141,000*
Khabarovsk	965,400	1,142,535	Lugansk	10,300	2,452,172	Autonomous S.S.R.		
Krasnodar	32,800	3,762,499	Lvov	4,300	2,107,858	GEORGIAN S.S.R.	29,400	4,044,045
Krasnoyarsk	928,000	2,615,008	Nikolayev	7,500	1,013,839	Abkhaz Autonomous S.S.R.	3,300	405,000*
Maritime Territory	64,900	1,379,000*	Odessa	10,800	2,026,609	Adzhar Autonomous S.S.R.	1,100	245,000*
Stavropol	2,950	278,000*	Poltava	13,250	1,631,706	South Ossetian		
AUTONOMOUS REPUBLICS			Rovno	7,950	926,225	Autonomous Region	1,500	96,000*
Bashkir	55,400	3,341,609	Sumy	9,400	1,513,718	TURKMEN S.S.R.	187,200	1,516,375
Buryat-Mongol	135,700	673,326	Ternopol	5,300	1,085,586	Ashkhabad	87,600	551,000*
Chechen-Ingush	6,100	710,424	Transcarpathian	5,000	920,173	Chardzhou	35,900	321,000
Chuvash	7,100	1,097,859	Vinnitsa	8,000	2,142,045	Mary	34,700	417,000*
Dagestan	14,750	1,062,472	Volyn	7,680	890,456	Tashauz	29,000	295,000*
Kabardian	4,550	420,115	Zaporzhe	10,400	1,463,849	UZBEK S.S.R.	157,300	8,105,704
Kalmyk	28,650	184,857	Zhitomir	11,600	1,603,604	Andizhan	1,600	1,162,980
Karelia	68,900	651,346	Belorussian S.S.R.	80,150	8,054,648	Bukhara	49,600	584,810
Komi	156,200	806,199	Brest	5,200	1,190,729	Fergana	3,100	1,138,770
Mari	8,900	647,860	Gomel	6,100	1,361,841	Kara-Kalpak		
Mordvinian	10,080	1,000,193	Grodno	5,000	1,077,365	Autonomous S.S.R.	61,600	510,101
North Ossetian	3,550	450,581	Minsk	8,500	1,982,519	Kaska-Darya	11,300	510,000*
Tatar	26,100	2,850,417	Mogilev	8,000	1,116,081	Khorezm	1,900	380,583
Tuva	66,100	171,928	Molodechno	5,700	810,000*	Namangan	2,400	594,000*
Udmurt	16,300	1,336,927	Vitebsk	7,600	1,276,113	Samarkand	12,300	1,148,231
Yakut	1,182,300	487,343	Kazakh S.S.R.	1,063,200	9,309,847	Surkhan-Darya	7,700	919,348
AUTONOMOUS REGIONS			Akmolinsk	59,000	633,000*	Tashkent	5,900	2,260,881
Adyge	1,700	284,690	Aktubinsk	114,700	404,000*	LITHUANIAN S.S.R.	25,200	2,711,445
Gorno-Altay	35,800	157,161	Alma-Ata	41,700	1,402,625	Kaunas	5,830	247,000*
Jewish	13,800	162,856	Dzhambul	52,000	562,000*	ARMENIAN S.S.R.	11,500	1,763,048
Karachay Circassian	3,800	278,000*	Guryev	98,600	288,000*	ESTONIAN S.S.R.	17,400	1,196,791
Khakass	24,000	411,047	Karaganda	156,700	1,018,661	LATVIAN S.S.R.	24,900	2,093,458
NATIONAL AREAS			Kokchetav	28,600	491,000*	MOLDAVIAN S.S.R.	13,000	2,884,744
Aga Buryat	9,380	49,109	Kurgan	27,250	480,000*	*Preliminary Figure		
Chukchi	274,520	46,689	Kustanay	76,700	705,000*			
Evenki	285,900	10,000	Kyzyl-orda	88,900	329,000*			
Khanty-Mansi	215,500	123,926	Pavlodar	53,600	485,000*			
Komi-Permyak	156,200	217,038	Semipalatinsk	67,600	520,229			
Koryak	151,740	27,525	Vostochno-Kazakhstan	37,300	734,924			
Nenets	67,300	45,534	Yuzhno-Kazakhstan	61,500	1,810,239			
Taymyr	316,700	33,000*	Zapadno-Kazakhstan	60,900	1,070,033			
Ust-Orda Buryat	8,000	133,071	TADZHIK S.S.R.	55,000	1,979,897			
Yamal-Nenets	258,800	62,334	Dyushambe	9,700	555,000*			
			Garm	7,600	165,000*			



A painting by E. Karnins, a Latvian artist, depicts a trio of Baltic fishermen mending their sails. The people of Latvia have demonstrated vigorous resistance to persistent Soviet attempts at "Russianization." In recent years the Soviets have colonized the Latvian S.S.R. with peoples of Russian stock in an effort to break down and remold the national conscience of the Latvian people.

and leaves wide marshy areas covered by aquatic vegetation.

Where the river flows into the Aral Sea there is a delta with an area of 4250 square miles. More than 550,000 cubic feet of grayish mire are brought by the river to the sea every year. The northern part of the delta contains small, swampy lakes, which are inhabited by water birds, enormous lizards and tigers.

The Zeravashan River, which formerly joined the Amu Darya, has its source in the mountains and is fed by glaciers and snowfields. When it reaches the area of Samarkand it divides into numerous channels and irrigation canals and then dries up. The Chu River flows toward the

Syr Darya through the Muyun Kum depression, but dries up and disappears in a marshy area before it can join the larger river.

Other rivers, such as the Sary-Su and the Talas, disappear in the Bet-Pak-Dala, but their waters are used to irrigate this area. The Ili, which is 940 miles long, rises in the Tien Shan mountain system in Chinese territory. It is a sizeable river, but loses volume as it nears Lake Balkhash.

LAKE BALKHASH

Lake Balkhash is a faulted trench filled with slightly saline water, with an area of about 7100 square miles.

It is difficult to measure its size because, for a great distance, the southern shores are covered with marshes. Its waters are brackish. The soil around the lake is largely infertile, and gnats infest the region. Tigers live in the thick rushy areas of the delta at the mouth of the Ili.

Soviet Central Asia: Vegetation

The natural vegetation is sparse because of the high summer temperatures, harsh winters with little snow, and high winds.

There is a narrow belt of wooded steppe in the northeast, which leads into an area of feather grass steppe. In the mountains are deciduous forests, and above the forest zone extend rich mountain pastures.

In the desert regions there is little color. Only desert flora can survive

the lack of water and the moving sands. Wormwood, saltwort and other desert plants have sparse foliage and large root systems which anchor them in the sand. Along the rivers and salt lakes are thickets of tall feather grass called *chiy*.

The dominant desert plant is the *saksaul* which is white with tiny flowers. There is a black variety which prefers clayey to sandy soil and has brown thorns. It grows as tall as twenty feet, and its wood is more dense than water and hence does not float.

The only color in the spring occurs on loess soil. There is a green carpet of vegetation, with wildflowers such as poppies, dandelions and geraniums. By May, everything is scorched, and only the dull color spurges or euphorbia, wormwood and saltwort remain during the torrid summer.

HUMAN GEOGRAPHY

OVER THE COURSE OF THE CENTURIES, many tribes invaded and conquered parts of the territory that today comprises the U.S.S.R. In addition, the Russian state gradually expanded to the east and west from its center in Moscow, annexing adjoining states. Because of this complex history, the population of the Soviet Union today is made up of many diverse elements and various racial and ethnic groups.

The Peoples of European Russia

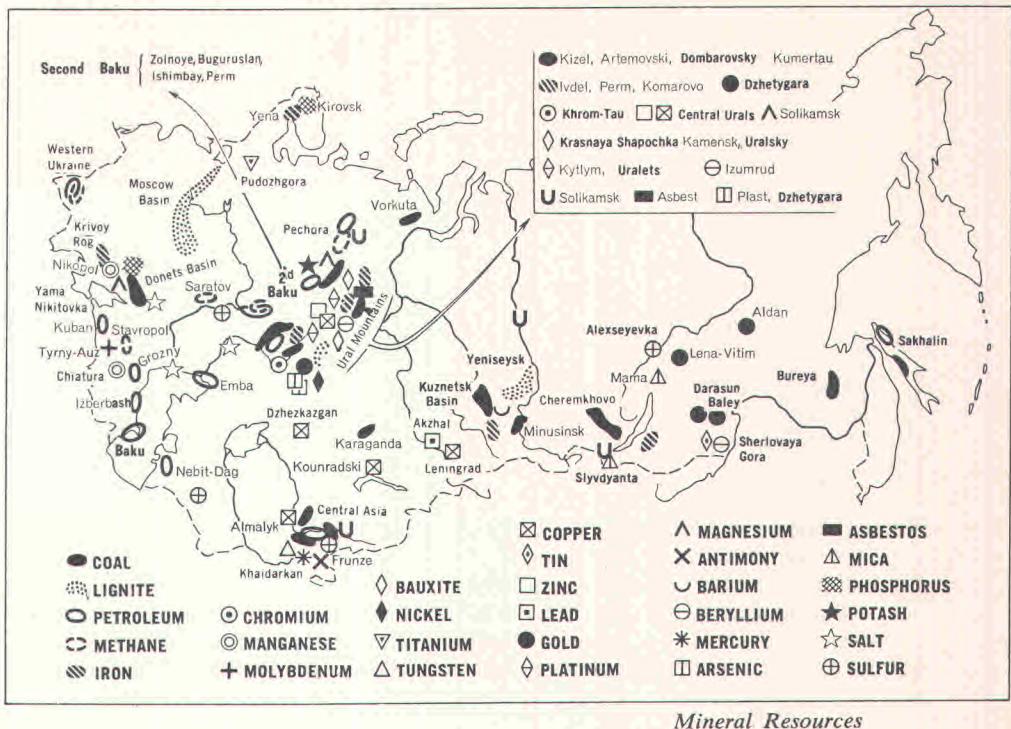
The majority of people in European Russia fall within one of the three Slavic groups: White, Little and Great Russians.

SLAVS

The Great Russians are the dominant ethnic group in the U.S.S.R. Over 100 million strong, they account for more than 52 per cent of the population. The nucleus of this group is still in the central part of European Russia, but it has spread out in all directions.

The Little Russians, or Ukrainians, live in the south and southwest part of European Russia in the areas of Kiev, Poltava and Kharkov. The almost 40 million Ukrainians comprise about 18 per cent of the U.S.S.R.'s population.

The White Russians, or Belorussians, occupy the western part of the country—the Upper Dvina, Upper Neman and Upper Dnepr regions—bordering Poland. These

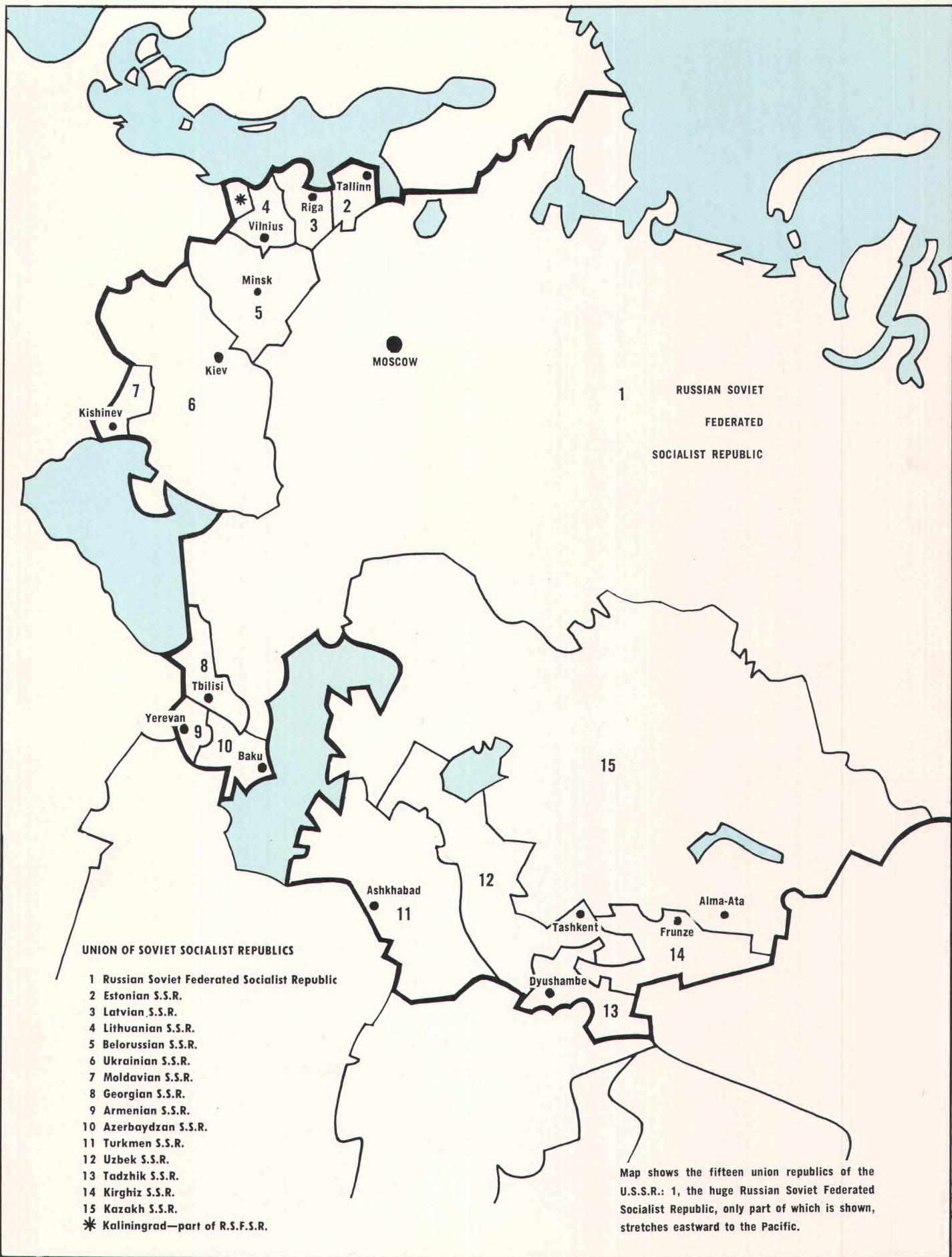


Mineral Resources

A Soviet painting depicts Lenin discussing his plans for the electrification of Russia. One of Lenin's dictums was: "Communism is Soviet power plus the electrification of the entire country." At the start of the Five Year Plan in 1929, installed Soviet electrical capacity was 2.3 million kilowatts. By 1960, the capacity had risen to 66.7 million kilowatts. The Soviets expected to nearly double this figure by 1965.



THE FIFTEEN UNION REPUBLICS OF THE U.S.S.R.





A panoramic view of Moscow and the Moskva River, as seen from the Lenin Hills district overlooking the city. The Moskva River, about 315 miles long, is linked to the Volga, north of Moscow, by the Moscow Canal, which was completed in 1937.

people, numbering about 7 million, make up about 3.5 per cent of the population.

The Lithuanians are Indo-Europeans, ethnically related to the other Baltic peoples. Numbering under 3 million people, a little over 1 per cent of the population, they occupy the territory north of the Belorussians. Closely related to these people, and living farther north, are 2 million Latvians—less than 1 per cent of the population. Both the Lithuanians and Latvians are ethnically akin to the Slavs. North of Latvia is Estonia. Its people are Baltic Finns of the Finno-Ugrian group. Today, the population of this region is just over 1 million, or about 0.5 per cent of the U.S.S.R.'s inhabitants.

It is interesting to note that under the rule of the Soviet government many of the minority groups have been renamed. The new names

employed by the government are usually those names by which the peoples call themselves.

FINNO-UGRIANS

In addition to the Russians there are many peoples of the Finno-Ugrian group. They are members of an ethnic group that once occupied the whole of northern Russia. The Laplanders (called Saami in the U.S.S.R.) are of this group. They are a nomadic people who, with their herds of reindeer, wander over the tundra of the Kola Peninsula.

The Zyrians (or Komi) of the Pechora region are cattle breeders, fishermen and boatmen. For the most part the Votyaks (or Udmurts) of the Perm region near the Urals and the Volga Finns are farmers and

fishermen. East of Moscow in the Khazan area these Finns are called Cheremiss (or Mari). In the territories of Ufa and Kuybyshev they are called Mordva (or Chuvash).

TATARS AND OTHER GROUPS

East of the confluence of the Volga and Kama rivers, in the region of Khazan, Ufa and Kuybyshev are found the majority of the Tatars; a considerable number also live in the Crimea, and at the mouths of the Volga and the lower Ural rivers.

The Kirghiz and the Bashkirs are Turkic peoples of the southern Urals. The Kalmyks, who are Mongols, also live in this region.

In the European U.S.S.R., the Czechs, Greeks, Jews, Germans, Poles, gypsies and other minority

groups each account for less than one per cent of the population.

The Peoples of Siberia

At first glance there does not seem to be anything Russian about large areas of Siberia. The local inhabitants are largely isolated from the Russian settlers, who, in this vast territory, are barely noticeable.

FINNO-UGRIANS

Along the shore of the Arctic Ocean, east from Cape Kanin, live a people of the Finno-Ugric group, the Samoyeds or Nentsy. Smaller groups of these people have moved up the Yenisey River as far as the Sayan Mountains. They intermarried with Turkish elements and have lost most of their ethnic features. The Ostyaks (or Khanty) who live along the middle Ob River, and the Voguls (or

Mansi) in the forests between the Urals and the Ob are also Finno-Ugrics. As mentioned before, both of these peoples are also found in European Russia.

TUNGUS

The Tungus, who are Mongols, are divided into various tribes. They all live between the Yenisey River and the Pacific Ocean in Eastern Siberia. Generally, they are reindeer breeders and hunters, but some of them are also farmers and cattle breeders.

TURKO-TATARS, MONGOLS AND PALEO-ASIATICS

Much of Eastern Siberia in the middle reaches of the Lena is inhabited by Yakuts, a Turkic people who originated perhaps in the Altay

Mountains. They settled in the Lena basin in the 13th century and not only survived in this harsh region but have increased in numbers and extended to the extreme north.

The Buryats live in the steppes of the Lake Baykal region in central Siberia. They are Mongol tribesmen and are mainly interested in stock breeding.

In southwestern Siberia, the population is mainly Turko-Tatar. Those of the Tobol and the middle Irtysh rivers and the steppes of Barabinsk are stock breeders. In the Altay and the Sayan mountains, they are fishermen and hunters.

Lastly, there are the Paleo-Asiatic groups such as the Chukchi, the Koryaks and the Yukagirs of Eastern Siberia, who are mostly whale-hunters. When they live inland, they are reindeer breeders. The Gilyaks or Niveks and the Kamchadals or Itelmens, all also of Eastern Siberia, are hunters and fishermen.

NONINDIGENOUS PEOPLE

In Siberia, there are large numbers of Russians, amounting to 65 to 70 per cent of the population. The Ukrainians are particularly numerous in the rich areas of the Amur and the Ussuri rivers (in the so-called "green wedge": *Zelyony Klin*), where they live beside the Koreans and the Chinese. As a result of World War II, the Germans who lived in the former German Republic of the Volga have been sent to Siberia, as have Poles from territories now incorporated in the U.S.S.R. It has been estimated that there are about 18 million inhabitants in Siberia. The indigenous population amounts to 800,000 to 900,000 of the total.

One quarter of the inhabitants of Siberia live in the cities, several of which have more than 100,000 inhabitants. These cities have shown an impressive population growth as a result of intense industrialization. The remainder of the population live in small towns, villages and settlements.

The Peoples of Soviet Central Asia

Soviet Central Asia is less populous today than it was in medieval times. The present population of about 20 million shows a recent increase, however. In 1870, it is estimated, there were no more than six million inhabitants.

In this area, the average popula-



tion density varies greatly from region to region, but averages about 15 persons per square mile. The deserts, steppes and the higher mountain regions are thinly populated. On the other hand, the oases and the irrigated areas have a population density of 130 to 260 per square mile. In general, the population, which is for the most part settled, lives in small centers, but the nomadic population is still considerable.

The most important cities and towns are on uplands along river banks, but only ten have more than 100,000 inhabitants and only Tashkent has more than half a million. Urban development has been rapid in the last half century and Tashkent increased from 120,000 persons in 1909 to 911,000 in 1956.

The non-Russians are in the majority in Soviet Central Asia, amounting to about four fifths of the total population. Some of the local peoples are Iranians, such as the Tadzhiks. The remaining peoples are Turko-Mongolians; they are tent-dwellers (*vurta*) and follow the nomadic life. They are divided into: the Kazakhs, who are to be found in the foothills of the mountains of northern Soviet Central Asia, and the Kirghiz, who occupy the mountains of southern Soviet Central Asia and the steppes of Kazakhstan. The southern Turkmen, a pastoral nomadic people, are also Turko-Mongolians. The Karakalpaks, who inhabit the Amu Darya delta on the Aral Sea, live a seminomadic life. There are also some groups which are of blended Iranian and Turko-Mongolian stock. Among these are the Uzbeks, inhabitants of the eastern oases.

The Peoples of the Caucasus

The Caucasus is a mosaic of different peoples. In no other part of the world does such a small area contain such a diversity of peoples, cultures and languages. The majority of these people fall within one of three groups: the Azerbaydzhanis, the Georgians and the Armenians. The Georgians, who comprise almost 1.5 per cent of the total U.S.S.R. population and number over 2.5 million, are the largest and most important of the groups living in the Caucasus. Along with minor tribes such as Circassians, Abkhazians and Lezgins, the Georgians antedate the Indo-European and Mongolian invasions. Indo-Europeans in the Caucasus include the Armenians, the Ossetes, the Tates, the Talish and



Kiev, capital of the Ukraine. One of the oldest cities in the Soviet Union, Kiev dates back to the 9th century. Following the destruction of the old city during World War II, Kiev was rebuilt and is today an attractive, modern city. The stately white palace shown here is the seat of the Supreme Soviet of the Ukraine.

the Kurds. Among the Ural-Altaic peoples in this area, the Armenian and Azerbaydzhani Tatars are dominant.

Present Population Distribution

The enormous population of the U.S.S.R. is unevenly distributed, more because of historical than geographical reasons. European Russia contains 61 per cent of the people, Siberia and the Soviet Far East 20 per cent, Central Asia 11 per cent and the Caucasus 8 per cent. The distribution ranges from regions of high population density to regions that are deserted: 78 persons per square mile in the European plain, 106 in the Caucasus, 57 in the Ural region, from 2 to 13 in Siberia and the Far East, and even fewer in Turkestan.

Industries and mineral resources, fertility of the soil and the presence of water and railroad lines have given impetus to the development of some areas. The Moscow region has more than 250 persons per square mile: the fertile black - earth region of the Ukraine has about 180. About 50 cities within the Volga and Ural regions have a population density equal to parts of Western Europe.

In recent years there has been a population increase of about 500 per cent in the new cities of the Asiatic U.S.S.R.

URBANIZATION

A new development in the U.S.S.R. is the growth of large cities. Under the tsars, 82 per cent of the population lived in the country and only 18 per cent in the towns and



A village near Poltava in the eastern Ukraine. A fertile region, the Ukraine has often been called the "bread basket" of the U.S.S.R. Grains, sugar beets, tobacco and fruit are grown in the district.

cities, but by 1959, the urban population had increased to 48 per cent. In 1926, there were only 31 cities with more than 100,000 inhabitants; by 1939, this number had increased to 82; and by 1959, there was a total of 145. Of the cities that did not appear in the 1897 census, Zaporozhe, Chelyabinsk and Donetsk had populations of 434,000, 688,000 and 701,000 persons respectively by 1959.

The over-all increase in the urban population averaged about 25 per cent between 1926 and 1959, but in the east percentages were much higher. Alma-Ata in Kazakhstan, an outstanding example of this growth, had 45,000 inhabitants in 1926 and 455,000 in 1959.

In addition to the increase in the urban population, there has been a great increase in the number of urban centers. About 800 new cities have sprung up in recent years. Some are near the mining areas of Central Asia and others near reclaimed land. Urban development is now taking place in the recently

settled lands. In 1926, as already mentioned, the entire U.S.S.R. had only 31 cities with more than 100,000 inhabitants. At that time, the huge areas of the Urals, Siberia, what is now the Soviet Far East, Central Asia and Transcaucasia had only 11. Now these regions alone contain 60.

In addition to this movement to the east and to new lands, there has been an exodus from the country to the cities. The population of the Russian urban centers increased by 2.8 million between 1950 and 1954, and the Central Asian cities increased in population by 3.2 million inhabitants. In addition to the old and historical cities, there are many new industrial centers set up by the government. Many of these cities were built near the Arctic Ocean and also near new mining centers and power stations in remote areas.

The inhabitants often have had to adapt to difficult climates. They have built homes and factories under harsh conditions. In the far north they have learned how to cultivate the Arctic soil. In desert areas "green belts" of trees have been planted to help protect the new cities from

the torrid winds. Precious water was brought to the oil center of Nebit-Dag, in the sandy Kara-Kum desert of Turkmenistan. Magnitogorsk, Novomoskovsk and Komsomolsk grew from nothing at all to modern cities.

Older cities have altered greatly even though they have kept up their historical, artistic and cultural traditions. The economic transformation which took place under the Soviet regime has brought about great social changes, and many new buildings have been constructed. The rural settlements have changed because of the new rhythm of economic development. The old houses of wood, straw, mud or clay are fast disappearing in many areas. New modern buildings are meeting the needs of collective farms. At the center of the collective farm is the village with its living quarters. Separate from the living quarters are the buildings required for stores, stables, depots, amusement centers, schools and libraries. Intermediate centers, between the country center and the city, are now being constructed to serve the needs of several collective farms.

REPUBLICS, REGIONS AND CITIES

The Russian Soviet Federated Socialist Republic

OF THE FIFTEEN REPUBLICS OF THE Soviet Union, the Russian S.F.S.R. is the largest and most important. It extends nearly 7000 miles from Kaliningrad on the Baltic Sea to the Chukchi Peninsula on the Pacific coast and includes Siberia and most of the European U.S.S.R. The maximum distance from north to south varies from 1500 miles in the east to 2500 miles in the west.

Its northern and eastern borders are the Arctic and Pacific oceans. On the west it is bordered by Norway, Finland, the Baltic republics, Belorussia, the Ukraine and Poland. On the south it extends to the Black Sea, the Greater Caucasus Mountains, the Caspian Sea, the Kazakh S.S.R. and the boundaries of Mongolia, China and Korea.

This vast republic has an area of over 6.5 million square miles; it covers nearly four fifths of the territory of the Soviet Union and contains most of the forests, rivers, minerals and other natural resources. Its 118 million people constitute about 60 per cent of the U.S.S.R.'s population.

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The population density varies from over 250 inhabitants per square mile in the Moscow area to 1 inhabitant for every 2 square miles in parts of the Siberian taiga.

The average population density of 18 per square mile is third highest among the Soviet Union republics. Increased urbanization and the settlement of the vast underpopulated areas within the republic have been the chief population trends of recent decades.

Three fourths of the population of the Russian S.F.S.R. are Russians, but there are thirty-nine other nationalities. Thirteen of these national groups have their own autonomous republics (A.S.S.R.s) within the Russian S.F.S.R. The areas with a predominantly Russian population are divided into administrative regions (*oblasts*) and territories (*krays*). Ethnic minorities within these divisions have their own national units, the most important of which are autonomous regions within the *krays*.

To simplify discussion, these

various divisions of the Russian S.F.S.R. have been grouped together in general economic areas.

THE EUROPEAN NORTH

This large area of almost 580,000 square miles extends from Finland and the region of Leningrad on the west to the Ural Mountains on the east. The northern border is the Arctic Ocean, icebound even in summer months. The southern boundary is the series of morainic ridges which serve as the watershed for the East European Plain. Included in this area are the Komi and Karelian A.S.S.R.'s and the regions of Murmansk, Archangel (Arkhangelsk) and Vologda.

The European North is principally a lowland, broken only by the granitic plateau of the Kola Peninsula and the low Timan Ridge. Much of the area shows the marks of heavy glaciation and has poor podzolic soil. The largest part of the European North is the vast lowland which stretches from Karelia to the Urals. The tundra vegetation of the extreme north is soon replaced by the taiga, which covers most of the area.

Agriculture is poorly developed in most of the area because of the cool, short summers and acid soils. The principal agricultural activity is dairying. Flax is grown in the

southern areas, and spring wheat is being introduced in the north. Fishing is an important industry in some of the coastal sections.

The largest natural resource of the European North is its forests, and lumbering is the principal economic activity. Nickel, iron ore and coal have been found on the Kola Peninsula, and the Komi A.S.S.R. has important coal and petroleum reserves.

Although the European North has been developed in recent decades and has shown a substantial increase in population, the density of inhabitants per square mile is still very low. The two principal cities are Murmansk and Archangel.

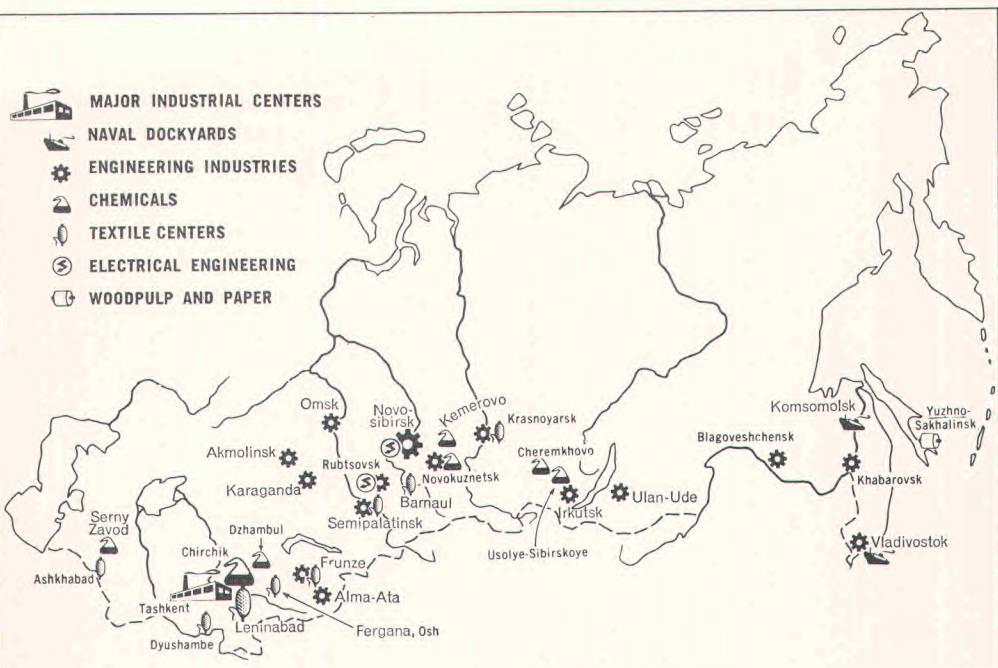
MURMANSK (pop. 226,000).

Situated on the east coast of the Kola Gulf, on the Barents Sea, Murmansk was a poor village until 1917, when the railroad from Leningrad was completed. It is now the largest city north of the Arctic Circle.

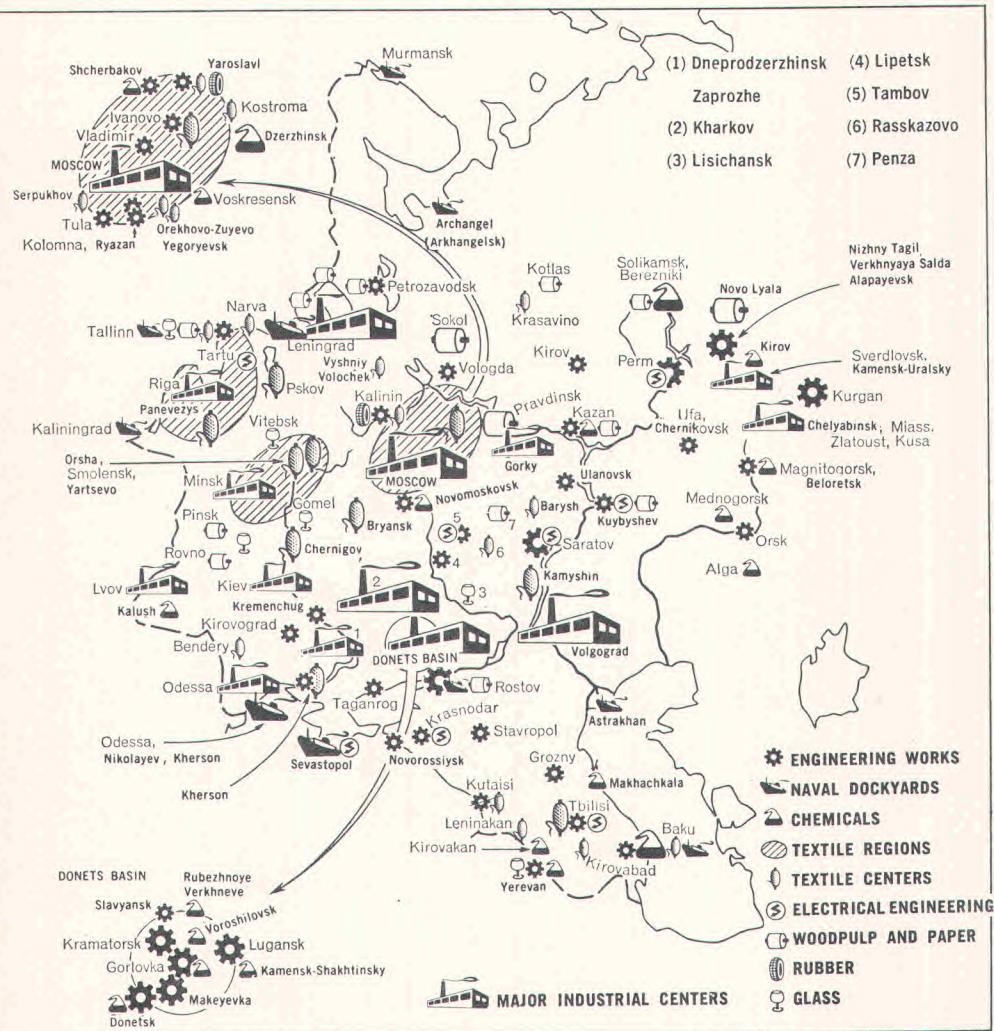
Its principal geographical asset is that, because of warming west winds, its port is ice-free throughout the year. Its main exports are lumber,

An ornate church in Kharkov provides a contrast to the numerous industrial plants in the city. Located in the Ukraine, Kharkov is one of the great railroad and industrial centers in the Soviet Union.





Industrial Centers in Central Asia and Siberia



Industrial Centers in Western U.S.S.R. and the Caucasus

fish and ores from the mines on the Kola Peninsula.

ARCHANGEL (Arkhangelsk) (pop. 256,000)

Archangel stands on the bay of the same name in the White Sea, at the mouth of the Northern Dvina River. Founded in 1583 as a fortified monastery, it is now the largest port for the export of timber and biggest timber-processing center in the Soviet Union.

Archangel is also an important cultural center, having many historical monuments and a famous school of forestry.

THE EUROPEAN NORTHWEST

The European Northwest contains the regions of Leningrad, Pskov and Novgorod and has an area of about 65,000 square miles and a population of 6.8 million. It is located around and east of the Gulf of Finland and contains the southern parts of Lake Ladoga and Lake Onega. This is a glaciated area with a moraine landscape and many swamps and boulders. It has numerous lakes, and is sometimes called the Lake Region.

Because of the poor podsolic soils, agriculture is of little economic importance in the European Northwest. The chief agricultural activities are flax growing and dairying. Forests cover a large portion of the area, and lumbering is an important industry. The area is relatively poor in mineral resources.

The basis of the economy of the European Northwest is the industrial complex centered on Leningrad, which is the region's major city.

LENINGRAD (pop. 3,321,000).

Formerly St. Petersburg and then from 1914 to 1924 Petrograd, Leningrad is the second largest city in the U.S.S.R. and shares economic and cultural supremacy with Moscow. It was founded in 1703 by Peter the Great, and was the capital of Russia from 1712 to 1918.

Leningrad is situated on the Gulf of Finland at the mouth of the Neva River. Soon after its founding the city virtually monopolized Russia's foreign trade. It was built upon one island but now extends over more than a hundred islands, divided by innumerable canals which are crossed by more than 120 bridges. It has been called "the Venice of the North."

Leningrad was the expression of absolute imperial power, and has

remained imperial in character. In the heart of the city there are many stately buildings, among them the Peter and Paul Fortress, two former palaces—the Hermitage and the Winter Palace—the Admiralty, the Palaces of the Senate and the Synod. Encircling the residential nucleus of the city are the industrial areas, with suburbs that are increasing in size.

Leningrad is a center for education, particularly in the sciences; there are almost two hundred scientific institutions within the city. It also boasts a large number of museums (of which the Hermitage is the most famous), libraries and theaters.

The factories of Leningrad produce machines, ships, textiles, chemicals and food and lumber products. Situated in the city are locomotive factories and also the U.S.S.R.'s largest porcelain, rubber and electrical machinery plants.

As well as being a center of cultural and industrial activity, Leningrad is a great port and commercial and railroad center. The rails joining Leningrad with Moscow, completed in 1851, run in a completely straight line for 570 miles.

NOVGOROD (pop. 61,000).

Though now small in size, Novgorod is of great historical importance. It is situated on the Volkhov River near Lake Ilmen and was originally the site of a Slav fortress. The date of the first settlement is not known, but as early as the 9th century it was the most prominent town in the Lake Region. Buildings from the 11th and 12th centuries have been preserved.

Its chief economic activity was trade; by the 14th century Novgorod traders had penetrated into Siberia, and it is estimated that the population had reached 400,000. In the 18th century, with the founding of St. Petersburg (now Leningrad), Novgorod's trade declined, and the city has never regained its economic importance. Today its industries include sawmills, shoe factories and distilleries.

THE KALININGRAD REGION

The region of Kaliningrad (area 5361 square miles; population 610,000) is separated from the body of the Russian S.F.S.R. by the Baltic republics and Belorussia. This region was taken from Germany and incorporated into the U.S.S.R. at the Berlin Conference in 1945.

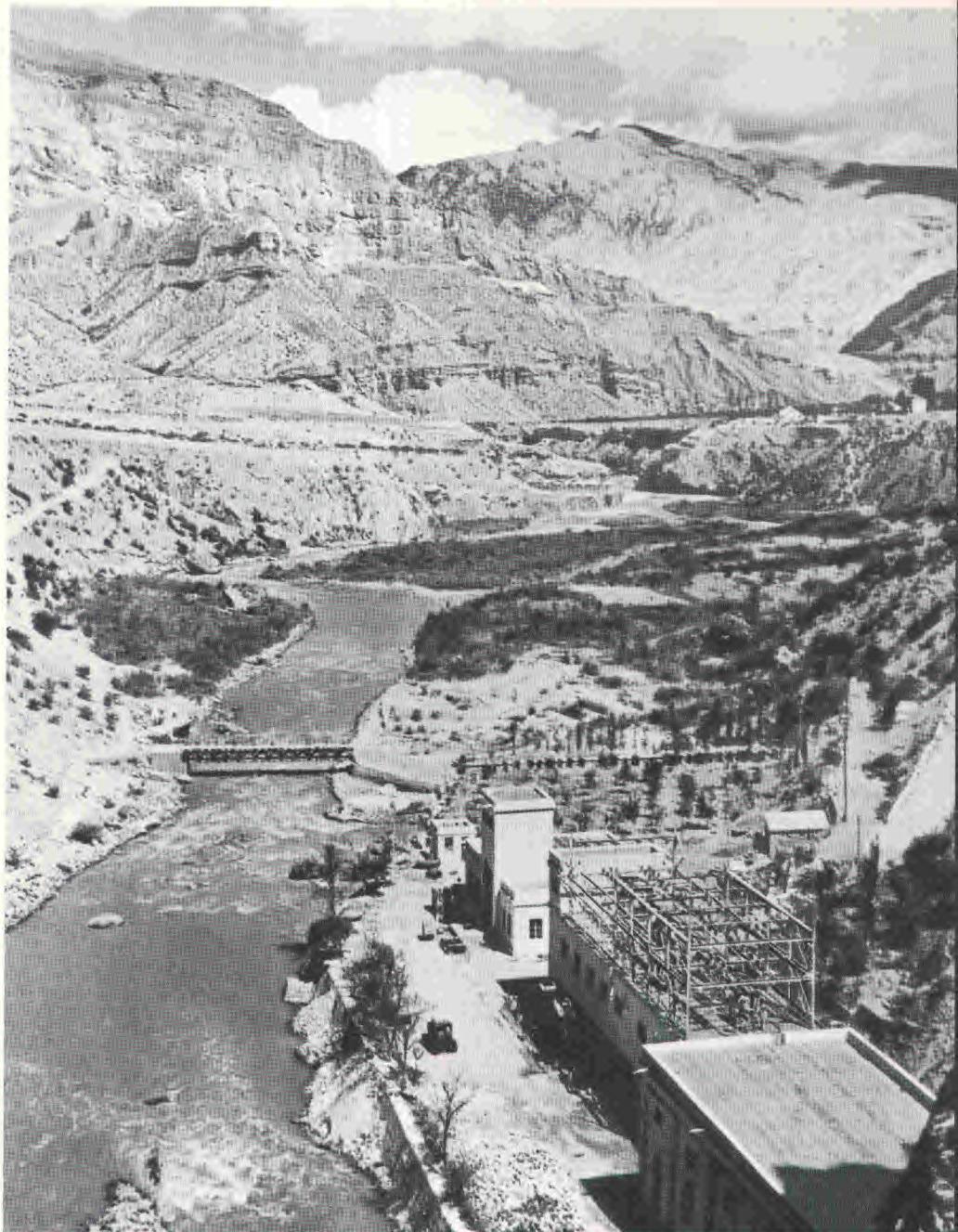
A lowland area with a humid, temperate climate, Kaliningrad is agriculturally rich, producing potatoes, sugar beets, rye and barley; it supports large herds of dairy cattle, and horses and hogs are raised extensively. There is a considerable forest area, and fisheries abound along the coast.

The region's industries include food, timber, cellulose and paper, and the manufacture of ships and motor vehicles. Most of the industrial activity is centered in the capital city of Kaliningrad.

KALININGRAD (pop. 200,000) formerly Königsberg.

This city was founded in the 13th century, and until 1945 was the capital of East Prussia. A university city since 1544, it is also an industrial center and an important port, linked to the Baltic by means of a canal twenty-six miles long.

A hydroelectric plant in the eastern Caucasus taps the energy of rapids on a headstream of the Sulak River, which flows into the Caspian Sea. This view is near Gergebil, a village in the Dages-tan A.S.S.R.





THE EUROPEAN WEST

Located just west of Moscow, south of Leningrad and east of Belorussia and Lithuania, the European West contains the regions of Kalinin, Veliky Luki, Smolensk, Kaluga and Bryansk. Its area is more than 85,000 square miles and its population 6.3 million.

The European West is primarily an upland area, containing the Valday Hills and the Smolensk-Moscow Upland in the north and the Central Russian Upland in the south. There are extensive marshes, and forests cover almost 30 per cent of

the land. It contains few mineral resources.

The area's economy is basically agricultural. Flax, potatoes and fodder crops are grown extensively. The fodder crops support large dairy herds, and hogs are also raised. Many of the industries are related to the area's agriculture and timber, but imported raw materials are used in the machine, chemical and textile industries of Kalinin, Bryansk and Smolensk.

KALININ (pop. 261,000).

Located on the Volga ninety-four miles northwest of Moscow, Kalinin

An interior view of a hydroelectric plant at Bratsk, about 300 miles northwest of Lake Baykal in southern Siberia. Situated on the Angara River, which is a tributary of the Yenisey, Bratsk was founded in 1631 as a Russian fortress along the route of the colonization of Siberia.

was founded in the 12th century and was formerly called Tver. It has textile mills and railroad repair shops, and produces utensils, synthetic rubber and photographic materials.

BRYANSK (pop. 206,000).

Bryansk is the main port on the Desna River, a tributary of the Dnepr. It is a railway junction, and has important metallurgical, machine, textile, chemical (phosphates) and timber industries.

SMOLENSK (pop. 146,000).

Smolensk is one of the oldest cities in Russia, dating from the 9th century. From the 14th to the end of the 17th century it was a prize in the wars between Russia and Lithuania and Poland, and some of its fortifications still stand.

A port and rail center on the Dnepr River, Smolensk has important machine and textile industries.

THE CENTRAL REGION

With an area of a little less than 200,000 square miles and a population of around 28 million, the Central Region is the historical and economic heart of Russia. Located in the center of the East European Plain, it includes the regions of Moscow, Vladimir, Ivanovo, Yaroslavl, Ryazan, Tula, Orel, Kursk, Belgorod, Voronezh, Kostroma, Lipetsk and Tambov. Its population density is the highest in the U.S.S.R.

Topography is varied—there are uplands and lowlands, forests and marshes; its excellent network of rivers, among them the Volga, the Oka and the Don, has been most important to the area. Their suitability for commerce and communication has led to the growth of large cities along their banks.

The Central Region is also the most important industrial area in the U.S.S.R. Coal, peat and iron ore are found in the north, and the major industries are steel making and the manufacture of machinery, chemicals and textiles.

Agricultural production is most extensive in the black-earth soils of the southern section, with wheat and other grains the principal crops. Flax,

potatoes, sugar beets and tobacco are also grown, and cattle and hogs are raised.

MOSCOW (pop. 5,046,000).

The capital of both the Russian S.F.S.R. and the Soviet Union, Moscow is the hub of the Soviet world. It is situated on the Moskva River, a tributary of the Oka; for reasons of defense it was founded on slightly elevated ground, surrounded by small valleys.

The Kremlin is the historical and monumental center of the city. The oldest wooden building now existing inside this famous enclosure was erected in the 12th century. Under Ivan III (1462-1505), the first tsar, the city spread outward from the fortress.

Alongside the citadel grew up the commercial city, which was named Kitay Gorod (Chinese City). Bely Gorod (White City) grew up during the 17th and 18th centuries around the citadel and Kitay Gorod. Another extension was Zemlyanoy Gorod (City of Earth). Each extension was surrounded by defensive walls. These walls were demolished and replaced by magnificent ring roadways, connecting the routes which radiate from the historical center of the city.

The city now extends over 127 square miles, of which 23 square miles are parks. The population, including the suburbs, exceeds 8 million.

Moscow, like Leningrad, is a cultural center. There are almost a hundred institutions of higher learning and numerous scientific research institutes, libraries (the Lenin Library has 17 million volumes), art galleries and theaters. The imposing buildings of Moscow University were begun in 1953 and contain many laboratories, libraries, museums and lecture halls. The campus is located on the former Sparrow Hills (now the Lenin Hills), from which Napoleon was able to see the whole city before the fire destroyed it.

The city is a center of industrial activity. About 8 per cent of Soviet industrial production comes from its factories, which manufacture such goods as steel, automobiles, locomotives, iron girders, electrical

materials, tools, plastic products, chemicals, textiles, rubber and food and timber products. It is also the publishing center of the U.S.S.R.

Moscow has become a great river port, because of the Moscow Canal, which links the Moskva River with the upper Volga, to the north. It is also the center for rail and air traffic in the U.S.S.R.

Surrounding Moscow are numerous towns, with populations ranging from about 100,000 to 150,000. The industries of these towns include the manufacture of locomotives, textiles and chemicals.

Among the numerous provincial cities in the northern industrial area, three are outstanding: Yaroslavl, Ivanovo and Tula.

YAROSLAVL (pop. 406,000).

Yaroslavl lies at the confluence of the Kotorosl and Volga rivers 140 miles northeast of Moscow. It

was founded in the 11th century and was the capital of an independent principality until the 15th century, when it was annexed by Moscow. It is famous as a commercial center and port, and its factories produce automobiles, electric motors, agricultural machines, synthetic rubber and cotton goods.

IVANOVO (pop. 322,000).

Located on the Uvod River, Ivanovo was an important commercial and manufacturing center as early as the 17th century. Famous for its cotton goods, it also produces other textiles and machinery.

TULA (pop. 345,000).

Located in the heart of the Moscow Basin, close to iron mines and served by numerous rail lines, Tula is a center of machine and metallurgical industries. It is also famous for the manufacture of samovars.



A post-World War II scene in Minsk, the capital of Belorussia in western European Russia. Minsk has been largely rebuilt since World War II, when it was occupied by the Nazis (1941-44) and virtually destroyed.

In the southern black-earth area, large cities are less numerous; the most important are Kursk and Voronezh.

KURSK (pop. 203,000).

Kursk is located in the Central Russian Upland, south of Moscow. Founded in the 9th century and destroyed by the Tatars in 1240, it was rebuilt in 1586 as a fortress. It served as a Russian stronghold against the Tatars and Poles until the end of the 18th century.

Today it is an important agricultural market and a large railway and industrial center, with sugar refineries, distilleries and factories which produce tobacco, agricultural machinery and electrical materials.

A solderer working on the ironwork of a new furnace at the great metallurgical plant of Novokuznetsk, formerly Stalinsk, in southern Siberia. Situated on the left bank of the Tom River, Novokuznetsk is the center of the Kuznetsk Basin, a growing industrial region.



VORONEZH (pop. 454,000).

The largest city of the central black-earth area, Voronezh extends along both banks of the Voronezh River, about twelve miles from its junction with the Don. It was founded as a fortress against nomads from the steppes. In the 16th century, under Peter the Great, it became the base for the Russian fleet. In the 20th century, Voronezh has become an important cultural and industrial center, manufacturing chemicals, machinery and food products.

THE NORTHERN CAUCASUS AND LOWER DON

This region has an area of more than 138,000 square miles and a population of 9 million. It is an ethnic mosaic, containing the Kabardian, North Ossetian, Chechen-Ingush and Daghestan A.S.S.R.s; the Krasnodar territory, which includes the Adygey autonomous region; the Stavropol territory, which includes

Giant cement mills supply the almost insatiable needs of the U.S.S.R.'s construction industries. The great urban development since World War II has necessitated the processing and manufacture of a continuous and plentiful supply of building materials.

the Karachay-Cherkess autonomous region; and the region of Rostov.

The area extends from the Greater Caucasus Mountains in the south to the steppes of the lower Don in the north. It includes the flat and semiarid steppes of Ciscaucasia. On the west are the Ukraine and the Black Sea, on the east the region of Astrakhan and the Caspian Sea.

In the whole region there has been a general development of agriculture because of a concentrated irrigation network. Cereal crops, sunflowers, castor oil plants, sugar beets, corn and other fodder crops, fruit and vegetables are grown. Cattle and sheep are raised.

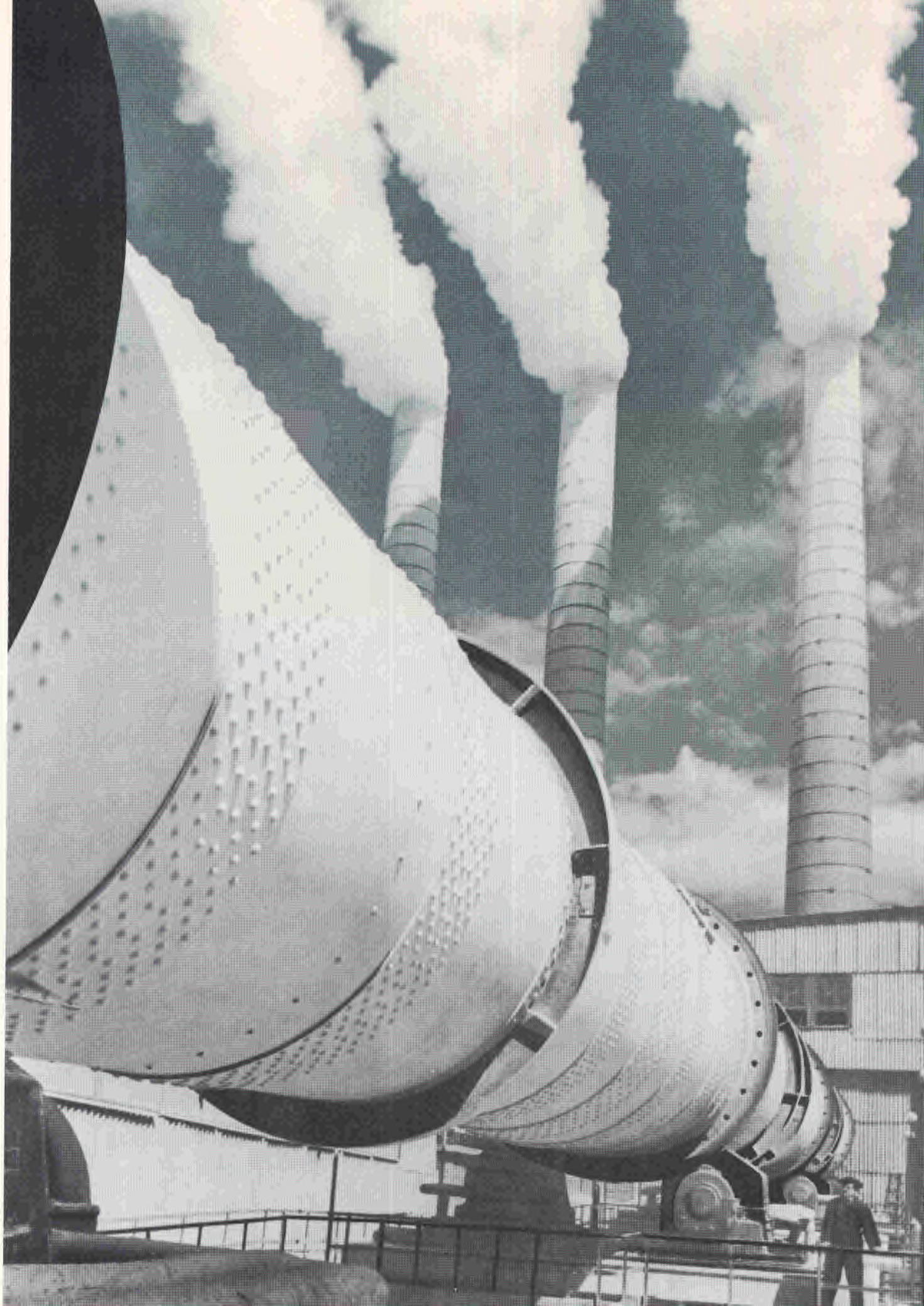
The eastern end of the coal-rich Donets Basin extends into this region, and there are oil deposits in the Kuban, Black Sea and Grozny areas. Water is available for irrigation and hydroelectric power. The principal industries are petroleum refining, the manufacture of cement and machinery, and the processing of agricultural produce. Tourist resorts along the Black Sea littoral are also important to the economy.

The region is crossed by the Rostov-Baku railway. Various trunk lines reach the coastal areas of the Black Sea and inland centers such as Volgograd (formerly Stalingrad). Roads which cross the Caucasus by the Astrakhan passes are also important communication lines for defense and trade. Among the many large cities, Rostov-on-Don, Krasnodar and Grozny are the most important.

ROSTOV-ON-DON (pop. 597,000).

Situated on the high western bank of the Don River at the head of its delta, the city was founded in 1761 and was connected by railroad with Moscow in 1869. It is a commercial and industrial center of great importance, because trade and traffic between the northern Caucasus and the Ukraine pass through the city. It has been enjoying a tremendous boom since the construction of the Volga-Don Canal.

The city has large industries, the most important of which are agricultural machinery plants, shipyards, an airplane factory and machine-tool



works. It suffered heavy damage during World War II.

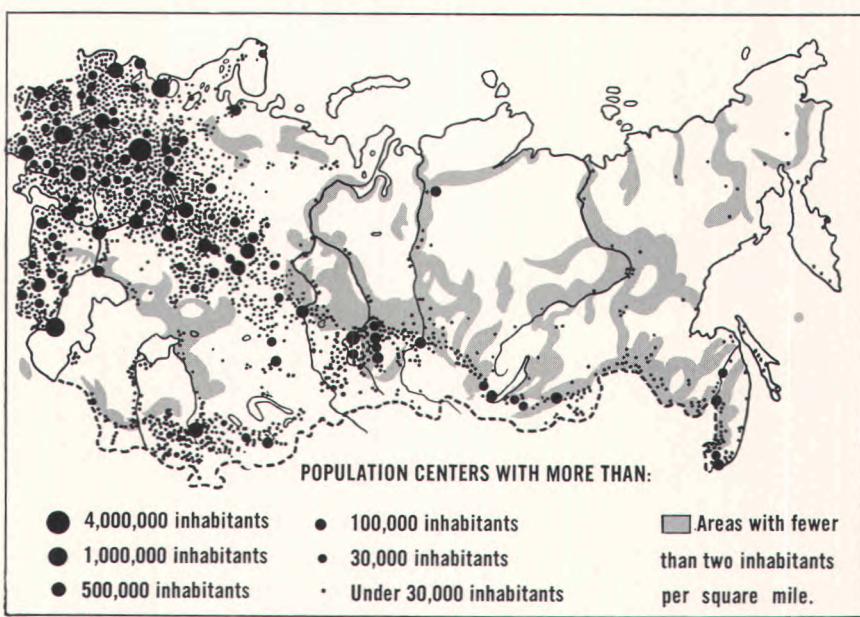
KRASNODAR (pop. 312,000) formerly Yekaterinodar.

A river port on the lower Kuban, Krasnodar was established in 1794 by the Kuban Cossacks by order of Catherine II, and it was once their capital. It was given its present name

in 1920. A railway junction, it possesses important food-processing, ironworking and mechanical industries. It also refines oil, which comes by pipeline from the Maykop fields.

GROZNY (pop. 240,000).

Grozny is situated on the banks of the Sunza River, a tributary of the Terek, in the heart of an oil district.



Population centers



It has oil refineries and industries which manufacture machines needed for oil drilling. Oil pipelines connect Grozny with Tuapse on the Black Sea, and with Makhachkala on the Caspian.

THE VOLGA REGION

This important area of more than 300,000 square miles is located between the Ural Region on the east and the Central Region on the west. It extends from the European North to the Caspian Sea in the south, a distance of 940 miles. It has a population of 21 million.

This huge corridor, formerly used by the Principality of Moscow as a buffer against attack from the east, is divided by conditions of soil, climate and vegetation into three sub-regions. These are: first, the forest area of the upper Volga, which includes the Mari A.S.S.R. and the regions of Gorky and Kirov; second, the forest and steppe area of the middle Volga, which includes the Chuvash, Mordvinian and Tatar A.S.S.R.'s and the regions of Penza, Ulyanovsk and Kuybyshev; and third, the lower Volga steppe area, which includes the Kalmych A.S.S.R. and the regions of Saratov, Volgograd and Astrakhan.

The irrigation of a vast expanse of land, particularly in the middle and lower sections, has given the Volga Region a new economic outlook. Huge reservoirs have been built along the axis of the Volga and Kama rivers, and protective forest covering has been planted against the dry, violent easterly winds. Hydroelectric plants have brought power to many areas.

Cereals, sunflowers, potatoes and sugar beets are grown, and increased numbers of cattle and sheep are being raised. The availability of electrical energy, natural gas and petroleum have led to industrial development. The major industries produce textiles, chemicals, timber, food-stuffs, petroleum products and machinery.

The large cities are all located on the Volga and its main tributaries. The following six cities are found from north to south along the navigable waterways.

The Warsaw-Moscow highway crosses the extensive low plain of Belorussia and the moderately hilly districts of central European Russia. The severe Russian winter brings traffic to a virtual standstill from late October to mid-April.

A well-packed dirt road through a farming village in the Kazakh S.S.R. Few roads are paved in rural areas of the U.S.S.R. and conditions for automobile traffic are notoriously bad, particularly during the rainy seasons.

GORKY (pop. 942,000)
formerly Nizhny Novgorod.

Gorky is the most important city on the Volga and the fifth most important in the Soviet Union. Established as a fortress in 1221, it is located at the confluence of the Volga and Oka rivers. In 1417, it became part of the Principality of Moscow.

Famous annual fairs were held in the city from 1817 until 1930. The city is the site of a university and other cultural institutions.

Gorky and smaller surrounding cities manufacture locomotives, tractors, cars, Diesel engines, radios, glassware and synthetic rubber.

KAZAN (pop. 643,000).

The capital of the Tatar A.S.S.R., Kazan lies near the Volga River, fifty miles north of its confluence with the Kama.

The city was founded in 1437. The ancient city was located thirty-one miles farther north, on the Kazanka River. In 1552, Kazan became part of the Principality of Moscow. It was destroyed in 1774 during a rebellion and rebuilt by Catherine II. It is the site of a university and the Tatar National Opera House.

Kazan is an important commercial and industrial center with good port facilities and rail connections. It has leather and shoe factories, woolen mills, woodworking, chemical, synthetic rubber, locomotive and airplane manufacturing plants and shipyards.

KUYBYSHEV (pop. 806,000)
formerly Samara.

Kuybyshev was founded in 1586 on the Volga River, where it is joined by the Samara River. The city, formerly a big grain and cattle market, is now a major industrial center, with petroleum refineries, woolen mills, paper mills, and synthetic rubber, electrical, locomotive, tractor and airplane factories. It has one of the largest hydroelectric plants in the Soviet Union.

Kuybyshev is a cultural center and the site of a university. In 1941, when Moscow was threatened by the German invasion, it was the temporary seat of the Soviet government.



SARATOV (pop. 581,000).

Located on the western bank of the Volga River north of Volgograd, Saratov is a university town, a river port and produces machinery and textiles. It is a center for agricultural industries and also has petroleum refineries.

VOLGOGRAD (pop. 591,000)
formerly Stalingrad before that Tsaritsyn.

The southernmost of the large cities on the Volga, Volgograd is a large port and rail junction. Its economic importance increased with the building of the Volga-Don Canal and a huge hydroelectric plant. Its industries include sawmills, petroleum refineries, metallurgical plants, tractor factories and shipyards.

The great battle which took place in the city during the winter of 1942-43 was the first major defeat of the German armies on Russian soil in World War II. During the battle the city was almost entirely destroyed. It has since been rebuilt.

ASTRAKHAN (pop. 294,000).

Astrakhan lies on the eastern bank of the largest tributary of the Volga. It is a lively port, with various industrial activities—shipyards, sawmills, jam factories, cotton mills and shoe factories. Moreover, it is the largest fishing center in the U.S.S.R.

THE URAL REGION

This region includes the Bashkir and Udmurt A.S.S.R.s and the regions of Perm, Sverdlovsk, Chelyabinsk and Chkalov. It has an area of 292,000 square miles and a population of about 17 million.

It is rapidly gaining in economic importance because of the great mineral resources of the Ural Mountains. These include gold, uranium, manganese, potassium, phosphates, oil, natural gas, iron, nickel and copper. The development of these deposits has led to the growth of industrial centers.

Timber and foodstuffs are produced; but the development of engineering and chemical industries,

and particularly steel production, are the key factors which have made the Ural Region one of the mainstays of the Soviet economy. It produces 60 per cent of the steel of the Russian S.F.S.R., and a third of the steel of the entire Soviet Union.

The main cities are Perm, Ufa, Nizhny Tagil, Sverdlovsk, Chelyabinsk and Magnitogorsk.

PERM (pop. 628,000)
formerly Molotov.

Located on the high left bank of the Kama River just east of the central Urals, Perm is a university, commercial and industrial center. It produces steel and has machine and naval industries, paper mills, fertilizer plants and oil refineries.

UFA (pop. 546,000).

Ufa, the capital and cultural center of the Bashkir A.S.S.R., is located on the Belaya River 715 miles east of Moscow. Its recent development is due to its proximity to important oil fields. Its industries include oil

refineries, machine factories and timber mills.

NIZHNY TAGIL (pop. 338,000).

About seventy-five miles north of Sverdlovsk, Nizhny Tagil was founded in 1723 on the Tagil River in the Ob basin. It is one of the oldest mineral centers in the Urals, with deposits of copper, gold, platinum and magnesium. The huge iron and mechanical industries producing railroad equipment are among the most important in the U.S.S.R. Non-ferrous metallurgy is also important.

SVERDLOVSK (pop. 777,000)
formerly Yekaterinburg.

The most important railway junction in the Urals, Sverdlovsk is situated in a picturesque area, covered with dense pine forests. It is a notable cultural center, housing the Ural branch of the U.S.S.R.'s Academy of Sciences. It owes its swift development to the production of mining machinery and metallurgical factories.

The spacious and lavishly decorated Moscow subway, called the "Metro" after its Paris counterpart, extends for about forty miles underground. Each station is different; crystal lighting fixtures, mosaic work and numerous statues give the stations a museum-like aspect that makes them the pride of Muscovites. First opened in 1935, the subway was extended during World War II (even during the midst of the Nazi siege) and new lines are still being dug.



CHELYABINSK (pop. 688,000).

Founded in 1658, as a stronghold against invasion by the Kirghiz in the Ob River basin, Chelyabinsk is now an industrial city. Its first significant growth came in the 1890s with the construction of the Trans-Siberian Railroad, of which it is the terminus. The city's recent rapid growth has paralleled that of the Ural Region in general.

The main industries of Chelyabinsk are ironworks, machine-tool, tractor and aircraft factories, chemical plants and distilleries.

MAGNITOGORSK (pop. 311,000).

Founded in 1929 on the Ural River, Magnitogorsk is a prototype of the new Soviet industrial center. It stands on the slopes of Mt. Magnitaya, in an area which has extremely rich iron deposits. It has become the major center in the Soviet Union for the production of cast iron and laminated steel.

WESTERN SIBERIA

Western Siberia is divided into the regions of Kurgan, Tyumen, Omsk, Novosibirsk, Tomsk and Kemerov and the Altay territory, which includes the autonomous region of Gorno-Altay. Except for the Altay Mountains in the southeast, it appears as a boundless plain, where the mighty Ob and its tributaries flow lazily along. It has an area of 960,000 square miles and a population of 12.3 million.

Ground available for cultivation has increased with land reclamation. Large areas of cereal crops, mostly wheat, have been planted in the vast southern steppe area. Industrial cultivation, with such crops as sunflowers, sugar beets, potatoes and flax, has been increased, and agricultural activities are being extended into the northern regions.

Cattle raising, particularly for dairying, is localized in the southern area. Animal raising for hunting, fisheries and the breeding of reindeer prevail throughout the north. The taiga, which covers much of the area, provides an immense supply of timber.

The recent economic development of Western Siberia is due mainly to the exploitation of the rich coal deposits of the Kuznetsk Basin in the Altay district. Chemical and metallurgical industries have mushroomed in this area. Other industries include textile and shoe factories and



specialized engineering plants, which utilize power provided by thermal and hydroelectric stations.

All the large cities of Western Siberia are in the southern area near the Trans-Siberian Railroad. The two branch lines coming from Sverdlovsk and Chelyabinsk meet in Omsk. Another important rail line in the area is the South Siberian, which comes from Magnitogorsk, crosses northern Kazakhstan and leads to Tashkent.

OMSK (pop. 579,000).

Omsk, which stands on the Irtysh River near the Kazakh border, was founded in 1716 as a fortress for Peter the Great's troops. Its modern development began in 1894 when it was reached by the Trans-Siberian Railroad.

Omsk is the commercial center of the region of the same name, on the border between the forest and steppe areas. An important railway junction and river port, it has mills, meat-packing plants, tanneries, automobile factories and chemical industries.

NOVOSIBIRSK (pop. 887,000).

Novosibirsk was founded in 1893 on the Ob River, near the Trans-Siberian Railroad bridge and until 1925 was called Novonikolayevsk. In the last few decades it has attained the greatest population of any city between the Urals and the Pacific Ocean. It has large hydroelectric plants and timber, textile, ironworking, metallurgical (tin) and engineering industries. The city contains the Western Siberian section of the U.S.S.R.'s Academy of Sciences.

TOMSK (pop. 249,000).

Located on the Tom River about forty-three miles south of its junction with the Ob, Tomsk is one of the principal educational centers of Siberia. The first Siberian university, founded in 1888, is located there. Tomsk is a center for machine and chemical industries.

BARNAUL (pop. 320,000).

Barnaul lies on the Ob River in the Altay territory, at the junction of the Turksib and Trans-Siberian railroads. It was founded in 1730 and developed rapidly as a commercial, mineral and manufacturing center, with cotton mills, tanneries and machine industries. An important meteorological observatory has been in operation since 1841.

A cold winter morning in a quiet area of Moscow. A building of the tsarist era, now crowned by a Soviet star, stands in mute testimony to a bygone era.

KEMEROVO (pop. 277,000).

Located on the Tom River in the Kuznetsk Basin, Kemerovo is one of the main mineral centers of the basin. It has huge chemical industries and one of the largest coking plants in the U.S.S.R.

NOVOKUZNETSK (pop. 377,000) formerly Stalinsk before that Novokuznetsk.

Also in the Kuznetsk Basin on the Tom River, Novokuznetsk is one of the major centers for metallurgy and chemical industries and the production of aluminum in the Soviet Union.

EASTERN SIBERIA

In this region are the Yakut A.S.S.R.; the Buryat-Mongolian A.S.S.R.; the Krasnoyarsk territory, which includes the Khakass autonomous region; the Tuva autonomous region; and the regions of Irkutsk and Chita. It has a total area of 2.8 million square miles and a population of 7 million.

This remote and lonely area is largely covered with taiga. Lumbering, hunting and reindeer breeding are carried on, but agriculture is poorly developed. The present boom is concerned with gold, tin and copper in the Aldan Plateau, nickel in the Norilsk area near the mouth of the Yenisey River and coal at Chermekova near Lake Baykal. The coal deposits in the basins of the Tunguska and Lena rivers are among the largest in the U.S.S.R. The iron ore along the Angara River has stimulated an iron industry made possible by electricity from large hydroelectric stations. Mica, lead, manganese, diamonds, rock salt, graphite, asbestos, aluminum and fluor spar also occur.

KRASNOYARSK (pop. 500,000).

Krasnoyarsk was founded in 1628 as a fortress on the Yenisey River. Located on the Trans-Siberian Railroad, it manufactures mining and other machinery and has sawmills, lumberyards, textile mills and food-processing plants.

IRKUTSK (pop. 370,000).

Located on the Angara River, Irkutsk is forty miles west of the southern tip of Lake Baykal. It was founded as a Cossack camp in 1652



and has become a large commercial, manufacturing and cultural center. It produces heavy machinery, trucks and autos, and has mica- and meat-processing plants and lumber mills. Situated on the Trans-Siberian Railroad, it has a large hydroelectric plant. A supply of coal is also available.

Irkutsk is considered the educa-



tional center of Eastern Siberia, having a university and also the Eastern Siberian section of the Academy of Sciences.

Other important Eastern Siberian cities are Cheremkhovo (coal), Ulan-Ude (machines, glass, meat-packing), Chita (railroad center, coal, engine-repairing, sheepskin coats), Yakutsk (river port and distributing center)

and Igarka (sawmills, river and ocean port).

THE SOVIET FAR EAST

The Soviet Far East occupies the entire Pacific coast of the U.S.S.R. It has an area of about 12 million square miles and a population of around 3.5 million. It is made up of the Khabarovsk territory, which

includes the Jewish autonomous region, the Primorye territory and the regions of Sakhalin and Amur.

Although there is considerable variation in topography, most of the region is mountainous and sparsely inhabited. Forests cover a great part of the area.

The Soviet Far East has rich mineral deposits: gold, uranium, iron,

tin, coal and oil have been found. Furs, skins, fish products and lumber are produced. Wheat, oats, barley, soybeans, kaoliang, sugar beets and some vegetable and root crops are grown in the southern sections.

Transportation is one of the big problems in this region. River boats and airplanes are the chief means of transportation in the northern part. In the south, there is the Trans-Siberian Railroad and its terminus, the port of Vladivostok. There are some roads in the Amur-Ussuri valley, and a main road connects the cities (from south to north) of Vladivostok, Khabarovsk, Yakutsk and Magadan.

VLADIVOSTOK (pop. 283,000).

Vladivostok is the oldest and most important city in the Soviet Far East. It is located on the Sea of Japan at the mouth of the Ussuri River and is a major port and railroad and industrial center. Its industries include

fish-canning, ship and railroad repair shops, textiles, leather, and zinc- and copper-smelting and refining plants.

KHABAROVSK (pop. 322,000).

The largest city of the Soviet Far East, Khabarovsk is built around a 1652 fortress at the junction of the Ussuri and Amur rivers. It is a commercial center with large industries, which include timber and wood-processing, leather-tanning, oil refining, iron and steel production, and airplane, automobile, textile and chemical manufacture.

The Baltic Republics

On the western side of the Soviet Union lie Estonia, Latvia and Lithuania. They are among the smallest republics of the U.S.S.R. Estonia, 17,413 square miles, has a population of 1 million; Latvia, 24,594 square miles, has a population of 2 million; Lithuania, 25,174 square miles, has a population of 3 million.

Moscow. A new residential quarter along the Moskva River. Since World War II, Moscow has been in the throes of a huge building program designed to provide adequate living quarters, as well as commercial and administrative facilities, for the expanding capital.

They have had their present status as union republics of the U.S.S.R. since 1940.

These three republics are low-lying and have numerous lakes, small swamps and bogs. The climate is cool and humid with high cloudiness, and the winters are milder and the summers cooler than in areas farther east.

The Baltic coastline of these three republics is an important economic asset. Icebreakers keep the ports open throughout the year, and they serve as trade outlets for the central U.S.S.R.

The land and climate are favorable for agriculture, and this is the principal economic activity in the region. Rye, oats and barley are the chief grain crops, and potatoes and flax are grown extensively. Fodder crops are grown to support the large dairy-ing industry.

Aside from timber, the only im- portant natural resource of the area is the oil shales in northeastern Estonia. Hydroelectric stations have been built for power supply, and industrialization has increased rapidly



in recent years.

In general, industry is concentrated in the Baltic Sea ports. The principal activities are food-processing and the manufacturing of textiles, machines and chemicals.

CHIEF CITIES OF ESTONIA

TALLINN (*pop. 280,000*)
formerly Reval.

Tallinn, the capital, is the political, cultural and economic center of Estonia. It contains about half the republic's industrial activity, with textile, paper, cement and timber industries, and is the main port.

TARTU (*pop. 74,000*).
formerly Yuryev.

Tartu, which dates from the 11th century, is the seat of a famous university, founded in 1632. Its industries include textile mills and sawmills.

NARVA (*pop. 21,000*).

Situated on the Narva River, this city possesses one of the most important textile factories in the Soviet Union.

CHIEF CITIES OF LATVIA

RIGA (*pop. 580,000*).

Riga is the capital and most important city of Latvia. It was founded in 1201 and is situated south of the Gulf of Riga, eight miles above the mouth of the Daugava (Western Dvina) River. The port is wide, but because its waters are shallow, large ships must berth in the nearby port of Daugavgriva.

Riga has a number of industries; electrical apparatus, locomotives, bicycles, rubber, textiles and chemicals are manufactured. It has a flourishing university (1919) and numerous other cultural institutes.

LIEPAJA (*pop. 80,000*)
formerly Libava.

Dating from 1263, it is now the second largest city in Latvia and one of the U.S.S.R.'s chief ice-free ports on the Baltic. Its major industries include steel mills and manufacture of agricultural machinery, explosives and leather goods. A rail terminus, it is also a noted health resort and naval base.

CHIEF CITIES OF LITHUANIA

VILNIUS (*Vilna*)
(pop. 236,000).

The capital of Lithuania, Vilnius is located on a tributary of the Neman.



Corner of a market in Moscow. Here the shelves (seen through window) are stacked high with consumer goods. Only a few years ago the empty or nearly empty shelf was the rule rather than the exception in such shops.

A charmingly designed fountain in Voronezh, a major industrial center about three hundred miles south-southeast of Moscow. Many factories, collective farms, community projects and union centers have parks or gardens where workers and their families can while away leisure hours.





A religious procession in Kursk during tsarist days, painted by I. Y. Repin. Founded in the 9th century, Kursk was long renowned as the birthplace of Theodosius, the Russian saint. Today it is an industrial and marketing center for a fertile black-earth region north of the Ukraine.

Founded in the 10th century, it is rich in history and historic monuments, is the seat of a university and has machine, textile, chemical and electrical industries.

KAUNAS (pop. 214,000).

Kaunas is located at the junction of the Vilyuy and Neman rivers and was founded in the 11th century. It is an industrial center and has food-processing plants, machine and chemical factories and textile mills. It is the seat of a university, opened in 1922.

The Belorussian S.S.R.

The republic of Belorussia was federated on Jan. 1, 1919. It has an area of 80,154 square miles and a population of 8 million.

It is bounded on the north and east by the Russian S.F.S.R., on the south by the Ukrainian S.S.R., on the west by Poland and on the northwest by the Latvian S.S.R. and the Lithuanian S.S.R. A passageway between the east and the west, it has been subjected to invasion by the Germans, Swedes, Poles, French and Tatars.

Most of it is flat land, and much of it was once under the Prypet Marshes. Large areas of these have been drained, and the land thus reclaimed is fertile. Pine woods cover the northern section, and broad-

leaved trees flourish in the southeastern section. Forests cover a quarter of the territory.

Farming and cattle raising are basic to the economy. Cereals, potatoes, sugar beets, flax, hemp, fruits and vegetables and fodder crops are grown, and dairy cattle and pigs are raised.

Belorussia has few mineral resources. It was long an industrially backward region, and the situation was made worse by the extensive damage during World War II. However, there has been vigorous rebuilding, and hydroelectric stations are supplying power to the area.

Industry is primarily based on local raw materials. There are lumber mills and wood pulp and cellulose plants, plants which process meat and milk products, flax, wool and

shoe factories and sugar refineries. Engineering, machine and chemical industries have grown up in recent years.

MINSK (pop. 509,000).

The capital of Belorussia, Minsk is located on the Svisloch River, a tributary of the Berezina. The city's existence was recorded as early as the 11th century. Control of the city changed hands many times until it was finally taken from Poland to become part of the Tsarist Empire in 1793. It was almost completely destroyed during World War II and has since been rebuilt.

Minsk is a large industrial center and has lumberyards, paper mills, breweries, iron, machine and textile industries, but it is even more important as a cultural center. It contains a university, and has a branch of the Academy of Sciences. It is a railway junction on the Warsaw-Moscow line and has a notable airport.

Other important industrial centers are: Gomel (166,000), Vitebsk (148,000) and Mogilev (121,000).

The Ukrainian S.S.R.

The third largest republic of the Soviet Union and second in population, the Ukraine has an area of 232,618 square miles and a population of 42 million. It is located in the southwestern U.S.S.R. and is bordered by the Russian S.F.S.R., Belorussia, Poland, Czechoslovakia, Hungary, Romania, Moldavia and the Black Sea. It was proclaimed a republic in 1917 and was increased to its present size between 1939 and 1954 when western Ukraine, northern Bukovina, part of Bessarabia, Transcarpathian Ukraine (Ruthenia) and the Crimea were added to it. *Ukraina* means frontier land, and in times past the Ukraine was called "Little Russia."

Most of the Ukraine is an undulating plains region with fertile black-earth soil. In the west is the Volyn-Podolian Upland and in the southwest are the foothills of the Carpathian Mountains.

In the Soviet economy the Ukraine is a most important area. It provides 56 per cent of the iron, 38 per cent of the steel, 33 per cent of the coal, 36 per cent of the tractors, 80 per cent of the Diesel locomotives, 20 per cent of the cement and 68 per cent of the sugar produced in the U.S.S.R. In addition, Ukrainian agriculture has made remarkable progress in

cereals, sugar beets, soybeans, tobacco and cotton. There are distilleries, cheese- and butter-processing plants, silos, mills, meat-packing plants and jam factories. The raising of cattle and hogs is widespread.

There has been tremendous development in the industrial field, particularly in coal, oil, natural gas, iron, manganese, steel and chemical plants. There are huge power plants, especially on the Dnepr River. Besides the manufacture of agricultural machinery and railroad equipment, the Ukrainian engineering industry is geared to produce machinery for mining, for metallurgical factories and for electrical and chemical industries.

As in other republics, there has been increasing urbanization in the Ukraine. Of the forty-three Soviet cities with a population of over 300,000, nine are Ukrainian. All the Ukrainian cities suffered extensive damage during the German invasion, and have been largely rebuilt since 1945.

The highest urban densities are to be found in the Donets Basin (Donbas), which is the Pittsburgh of the Soviet Union; in the cities spread along the Dnepr River; and in the iron-bearing basin of Krivoy Rog. In these highly industrialized areas, inhabited by one third of the whole Ukrainian population, are five of the republic's most important cities. In descending order of population they are: Donetsk, Dnepropetrovsk, Zaporozhe, Krivoy Rog and Makyevka.

DONETSK (pop. 701,000) formerly Stalino before that Yuzovka.

Donetsk is the largest city in the Donets Basin. It has large mining, iron, engineering and chemical industries.

DNEPROPETROVSK (pop. 658,000) formerly Yekaterinoslav.

This city was founded in 1778 on the Dnepr River, near the famous falls. It has a large port and is

A modern view of the central square in Kursk. Situated on two hills in a hilly region midway between Moscow and the Crimea, Kursk is an important rail junction of European Russia.



a commercial and manufacturing center producing iron, machines, chemicals and textiles. There are also electrical industries.

ZAPOROZHE (pop. 434,000)
formerly *Alexandrovsk*.

Zaporozhe has steel, iron, alloy, aluminum, machine and chemical industries. It is the site of the Dnepr dam and power station.

KRIVOY ROG (pop. 386,000).

Krivoy Rog is located near Dnepropetrovsk, in the heart of a rich iron ore region. The industrial growth has included ironworking, machine and chemical industries.

MAKEYEVKA (pop. 358,000)
formerly *Dmitrievsk*.

Located in the region of Donetsk, near important coal mines, Makeyevka is an iron-manufacturing center. Its population has more than quad-

rupled in twenty-three years.

The four other large Ukrainian cities are just outside the industrial districts mentioned above. They are Kiev, Kharkov, Lvov and Odessa.

KIEV (pop. 1,102,000).

Sometimes called "the mother of Russian towns," Kiev is the capital and cultural center of the Ukrainian S.S.R. One of the oldest cities in the U.S.S.R., it was already an established town in the 9th century and was the nucleus of the first Russian state.

Kiev is situated on the high western bank of the Dnepr River, between the steppe and the forest lands. Much of it was destroyed by the Germans in World War II, including part of the famous 11th-century monastery, the Lavra. Most of its buildings date from after the war, and the new city was laid out with wide, tree-lined streets and many

parks and gardens.

Kiev has a university, a branch of the Academy of Sciences and many other institutions of higher education. There are also a number of theaters, museums and libraries.

In addition to its political and cultural importance, Kiev is an industrial center. Among its most important products are machinery, textiles, chemicals, electrical equipment, rubber and pharmaceuticals.

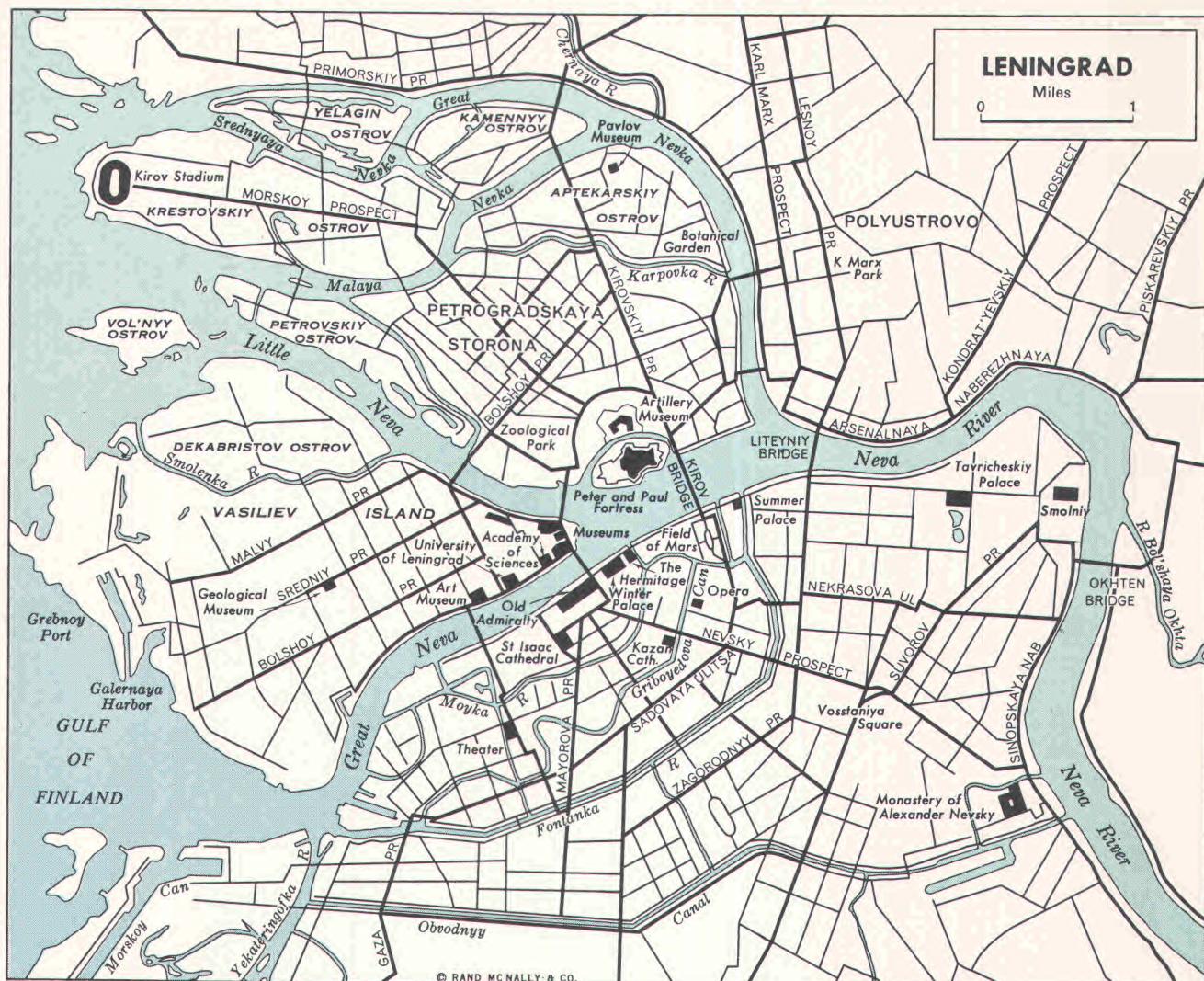
KHARKOV (pop. 930,000).

Founded about 1655 as a fortress, Kharkov developed along a minor tributary of the Donets River. Beginning in the late 19th century it grew rapidly as an industrial center. It suffered great destruction in World War II, and by 1956 the city was completely rebuilt.

In the heart of Kharkov are numerous technical, literary and art institutes. Around it are residential sections, interspersed with factories and divided by belts of greenery into

A corner of the Gorky Park of Culture and Rest in Moscow. The park is named for the famed Russian writer Maxim Gorky.





distinct units. Kharkov has great industrial importance because of its plants manufacturing tractors, locomotives, bicycles, aircraft and chemical products.

LVOV (pop. 410,000).

Lvov, acquired from Poland after World War II, is situated in the western Ukraine near the Polish border. It was founded in 1250 as a fortress against the Tatars, and has been the scene of memorable sieges—by the Swedes in 1704, the Austrians in 1772, the Poles in 1918 and the Russians in 1944. The city has historical, commercial, cultural and economic importance, and manufactures textiles, machines and chemicals.

ODESSA (pop. 667,000).

Odessa is located on the northern coast of the Black Sea and is the leading seaport of the Ukraine. It

was founded by ancient Greeks, abandoned by them in the 3rd or 4th century A.D. and not settled again until the 14th century. Because of its strategic location as a port, it has been the scene of battles between contending powers throughout its history.

Destroyed during World War II, when it held against the German Army for sixty-nine days, it has now been rebuilt. Shipbuilding, food-processing and the manufacture of chemicals and textiles are the major industries, and wheat is the chief export.

Odessa has a number of institutions for higher education and has long been a literary center. There are numerous health resorts in the environs of the city.

THE CRIMEA

The region of Crimea, which is coextensive with the Crimean Penin-

sula, was transferred from the Russian S.F.S.R. to the Ukrainian S.S.R. in 1954. It is a distinct geographical territory, with an area of 9884 square miles and a population of 1 million.

On the steppes which cover much of the peninsula, cereal, cotton, tobacco and garden crops are produced. In the foothills and coastal plain of the south are vineyards, fruit orchards and tobacco plantations. Fisheries are important along the coast.

The Crimea is relatively poor in mineral resources, the only one of importance being the iron ore mined on the Kerch Peninsula. Large-scale metallurgical industries have developed in this area. The only other industries of importance are the processing of fish and agricultural products.

On the southern coast is the Riviera of the Soviet Union. Its

picturesque beauty, subtropical climate and cloudless summer skies make it an ideal resort area.

SIMFEROPOL (pop. 189,000).

The largest city and capital of the Crimea is Simferopol, located in the center of the peninsula. It produces canning machinery and processes agricultural products.

SEVASTOPOL (pop. 148,000).

Sevastopol on the southwestern coast is an important naval base and has the best natural harbor on the Black Sea.

YALTA (pop. 47,100).

The most famous of the Crimean cities is Yalta. The largest of the Crimean resorts, it was the site of an important conference of the Allied leaders near the end of World War II.

The Moldavian S.S.R.

Moldavia became a union republic on Aug. 2, 1940, and is made up of the old autonomous republic of the same name in the heart of the Ukraine and also part of Bessarabia. It is bounded on the west by

Romania and on the north, east and south by the Ukraine. Moldavia covers an area of 13,012 square miles and is the second smallest Soviet republic. Its population is 3 million, and it has the highest population density (220 per square mile) of all the republics in the Soviet Union.

Most of the territory of Moldavia was ceded to the U.S.S.R. by Romania in 1940. It was a valuable acquisition, for Moldavia is one of the most fertile agricultural regions in all of Europe. The soil and climate permit intensive agriculture, and arable land constitutes almost 60 per cent of the area. Seventy-eight per cent of the population is rural.

The largest acreage is devoted to grain crops; sugar beets, sunflowers, potatoes, cotton and tobacco are also grown extensively. In the central section of the region, fruits and grapes are grown; Moldavia is called "the land of vineyards" because one third of the Soviet Union's wines are produced there.

There are practically no minerals except some lignite and phosphate deposits. The huge hydroelectric plant

of Kamenka, on the Dnestr River, has stimulated the industrial development of this region. Most of the factories are food- or animal-product-processing plants, but there are some iron foundries and machine factories.

KISHINEV (pop. 217,000).

Kishinev, the capital of Moldavia, was founded in 1436, but it was still a small town when it was annexed by Russia in 1812. Like so many Soviet cities, it was almost completely destroyed during World War II and was afterward rebuilt.

It has become a busy industrial center, with grain-milling plants, distilleries and textile mills, and it is an important market for grain, cattle, cheese, wool, fruit and wine. It has also become a cultural center, with a university and the Moldavian branch of the Academy of Sciences.

The Caucasus Republics

The Caucasus is a largely mountainous region of strongholds and fortifications, where peoples of Asia and Europe have settled. In the course of its turbulent history it has been invaded by the Persians, Greeks, Byzantines, Arabs, Kazakhs and Turks, among others. Tbilisi (Tiflis), the capital of Georgia, has been burned to the ground twenty-nine times.

A 19th-century palace on the famous Nevsky Prospekt, now renamed Twenty-fifth of October Street, Leningrad's main thoroughfare. Originally called St. Petersburg, the city's name was changed to Petrograd in 1914 and Leningrad in 1924. It was the capital of Russia from 1712 to 1918.



THE GEORGIAN S.S.R.

This republic has an area of 26,911 square miles and a population of 4 million. It includes two autonomous republics—the Abkhasian and Adzharian—and the autonomous region of South Ossetia. Like Azerbaijan and Armenia, it became a union republic in 1936.

Georgia extends inland from the Black Sea in the shape of a wedge and is bordered by Turkey, Armenia, Azerbaijan and the Russian S.F.S.R. The Black Sea coast is low, but farther east are the highest peaks in the Greater Caucasus Range.

Differences in elevation and climate have led to the cultivation of a wide range of crops. The most important economically are tea, grapes and fruit. The mountainous zones have large forests, while on the grasslands graze large herds of sheep, goats and cattle.

The mineral resources are varied. Manganese, coal, iron, limestone, oil, molybdenum and tungsten are present. There is great hydroelectric potential because of the many rapid rivers. Industrial concentration is in ironworking, machinery, engines and vehicles, textiles and food-processing.

**TBILISI (pop. 694,000)
formerly Tiflis.**

Tbilisi is the capital of the Georgian S.S.R. and the twelfth largest city in the U.S.S.R. It was founded in the 4th century A.D. and has changed hands many times. It has a strategic central location on the Kura River.

In appearance, Tbilisi presents sharp contrasts. In some sections are modern buildings, in others dilapidated wooden slums. Some of the cathedrals and palaces date back to the 5th century A.D. There are numerous educational institutions and museums, and colorful oriental markets and bazaars.

Tbilisi is the road, rail and airline center of the Caucasus. Its industries include shoe factories and textile, ironworking and machinery plants.

Other important Georgian cities are the ports of Batumi (87,000) and Sukhumi (67,000) and the interior city of Kutaisi (114,000).

THE AZERBAJDZHAN S.S.R.

Azerbaijan occupies the extreme southeast corner of the Caucasus and is bordered by the Russian S.F.S.R., Georgia, Armenia, Iran and the Caspian Sea. It has an area of 33,436 square miles and a popula-



The imposing cathedral of St. Isaac in Leningrad exemplifies the city's renowned architecture. Leningrad (then St. Petersburg) was constructed during the early 18th century to serve as the capital of the Russian Empire. After the Soviet capital was transferred to Moscow, in March 1918, Leningrad continued to develop as the most important commercial and cultural center in northern European Russia.

tion of 3.7 million. It includes the Nakhichevan A.S.S.R. and the autonomous region of Nagorno-Karabakh.

Like Georgia, Azerbaijan has a varied topography. It includes mountains of both the Greater and Lesser Caucasus ranges and the Kura Lowland.

A wide range of agricultural products—fodder crops, grapes, rice, tea, citrus fruits and cotton—are grown. Sheep, goats and cattle are raised.

Azerbaijan has a number of mineral resources—including iron, bauxite, copper, pyrites and salt—but by far the most significant for the republic's economy is petroleum. The oil products of the refining plants around Baku, although their relative importance to the Soviet Union has steadily declined since 1940, still represent almost 15 per cent of the national total.

Other industries produce copper goods, chemical products, synthetic rubber, cement, building materials,

textiles and engineering products. Fisheries centered on the Caspian Sea are also important.

Over a quarter of the population of Azerbaijan lives in the capital, and most important city, Baku.

BAKU (pop. 968,000).

The first historical reference to Baku dates from 885 A.D. At the beginning of the 19th century it was still a small town with 2235 inhabitants, but today it is the fourth largest city in the U.S.S.R.

Baku owes its prosperity and tremendous growth to oil. Situated on the Caspian Sea on the southern side of the Apsheron Peninsula, it is surrounded by a mass of derricks, many of which stand in the sea. It is a large industrial center, with oil refineries and machinery, chemical and textile plants. It also has educational and cultural importance.

Baku is encircled by suburbs on the Apsheron Peninsula. This for-



Lenin Avenue in Murmansk, the largest city within the Arctic Circle. Situated on a deep inlet of the Barents Sea more than six hundred miles north of Leningrad, the city's port is ice-free, even in winter. Because of this and its good road and rail communications with Soviet Karelia and Leningrad, Murmansk has become an important commercial and shipping center. First settled in 1915, it served as a vital delivery port for Western arms and supplies to the Soviets during World War II.

Karl Marx Street in Omsk, a flourishing metropolis at the junction of the Ob and Irtysh rivers. The city grew up around a fortress founded in 1716 by Peter the Great. It was the most important city in Siberia until about 1930, when Novosibirsk took over that distinction.



merly desolate stretch of land has been transformed into an oasis of gardens and orchards.

THE ARMENIAN S.S.R.

Armenia is the smallest and one of the most densely populated of the Soviet republics. Bordered by Iran, Turkey, Georgia and Azerbaijan, it is 11,506 square miles in area and has a population of 2 million. It is a rugged, high, mountainous area with extremes of climate.

Hydroelectric energy and irrigation are well-developed in Armenia. There are at least 6000 miles of irrigation canals. Most of these are in the Araks River valley, which is the most important agricultural district.

Forty per cent of the cultivated area is irrigated. Cereals, cotton, tobacco, sugar beets and vegetables are grown, and sheep, goats and cattle are raised. The dairy products industry is important. In the summer months, the mountain pastures are used by flocks from Azerbaijan, as well as Armenian ones.

The most important mineral resources are uranium-bearing ores, copper and building stone. The largest industries are food processing, and the making of fertilizers, synthetic rubber, machinery, electrical equipment and textiles.

YEREVAN (pop. 509,000).

Located on the Zanga River, near the border of Turkey, in sight of Mt. Ararat, Yerevan is the capital and most important city of Armenia. It is a large industrial center, manufacturing machinery, textiles, chemicals and food products.

Yerevan dates back to the 6th century A.D. and has spacious squares and gardens, Greek-Armenian churches, mosques and a huge bazaar. The center of Armenian culture, it is the seat of a university founded in 1920.

The Kazakh S.S.R.

Kazakhstan is the giant of the Soviet Central Asian republics, four times the size of Texas. With an area of 1,064,092 square miles and a population of 9.3 million, it constitutes almost 70 per cent of Soviet Central Asia, and 16 per cent of the entire Soviet Union. In size, it is exceeded only by the Russian S.F.S.R. It is located north and east of the Caspian Sea, and is south of the Russian S.F.S.R. and north of Turkmenistan, Uzbekistan and Kirghizia. In the southeast it borders China.

Kazakhstan became a union republic in 1936.

In the southwest are part of the Caspian Depression and the Turan Lowland; in the central area are the Kazakh Hills and the Bet-Pak-Dala steppes. Further east are parts of the Altay and Tien Shan mountains.

The extremely dry climate has been conducive to the creation of deserts, and almost one fifth of the total land area is uninhabitable. Forests cover only 9 per cent of Kazakhstan, and are found mostly in the mountainous regions. More than 10 per cent of the republic is under cultivation. A far larger portion (over 60 per cent) is pasture and steppe land.

Irrigation has given a great boost to agriculture. In addition to the old irrigated areas along the Syr Darya River and at the foot of the huge mountain arcs, a great deal of land has been reclaimed in the Bet-Pak-Dala between the Chu and Sary Su rivers. The amount of arable land has increased from 10.3 million acres in 1913 to 70 million today.

In the southeastern section, irrigated land produces a large amount of rice, sugar beets, grapes, fruits and tobacco, while in the southwestern area, watered by the Syr Darya and its tributaries, cotton is grown. Cereal grains are raised in the north.

Cattle, sheep and goats are the pillars of the economy of Kazakhstan. Nomadism, which has dominated this

region for thousands of years, has been replaced by the introduction of a system of animal raising which utilizes mountain pastures in summer and the plains in winter.

GROWTH OF CITIES

Large towns are increasing in number and size because of mineral and industrial expansion, and around the towns suburban agriculture is increasing. The fields are protected from the wind by lines of trees. The collective agricultural center of Karaganda in the mineral area of central Kazakhstan covers an area of about 5 million acres.

The republic is rich in mineral resources. Oil wells exist around the Emba River in the northwest. Copper, zinc, lead, nickel, chromium, manganese, uranium and coal are mined. The lead deposits are half of the Soviet total. The chromium deposit is reported to be one of the largest in the world, and the Karaganda Basin mines over 30 million tons of coal yearly.

The hydroelectric power station at Ust-Kamenogorsk, in the upper Irtysh Basin, is one of the most powerful in the world. It provides power for both this and the neighboring Altay region.

In mineral and industrial production, the republic occupies third place in the Soviet Union. Besides the food-processing industries, there are

cotton and woolen mills. Nonferrous metals are refined, and chemical and machine manufacturing plants have been built.

Since World War II, Kazakhstan's rate of population growth has been remarkable. Between 1947 and 1959 the population increased by 55 per cent, or over 3 million. Most of the new settlers came from the European U.S.S.R.

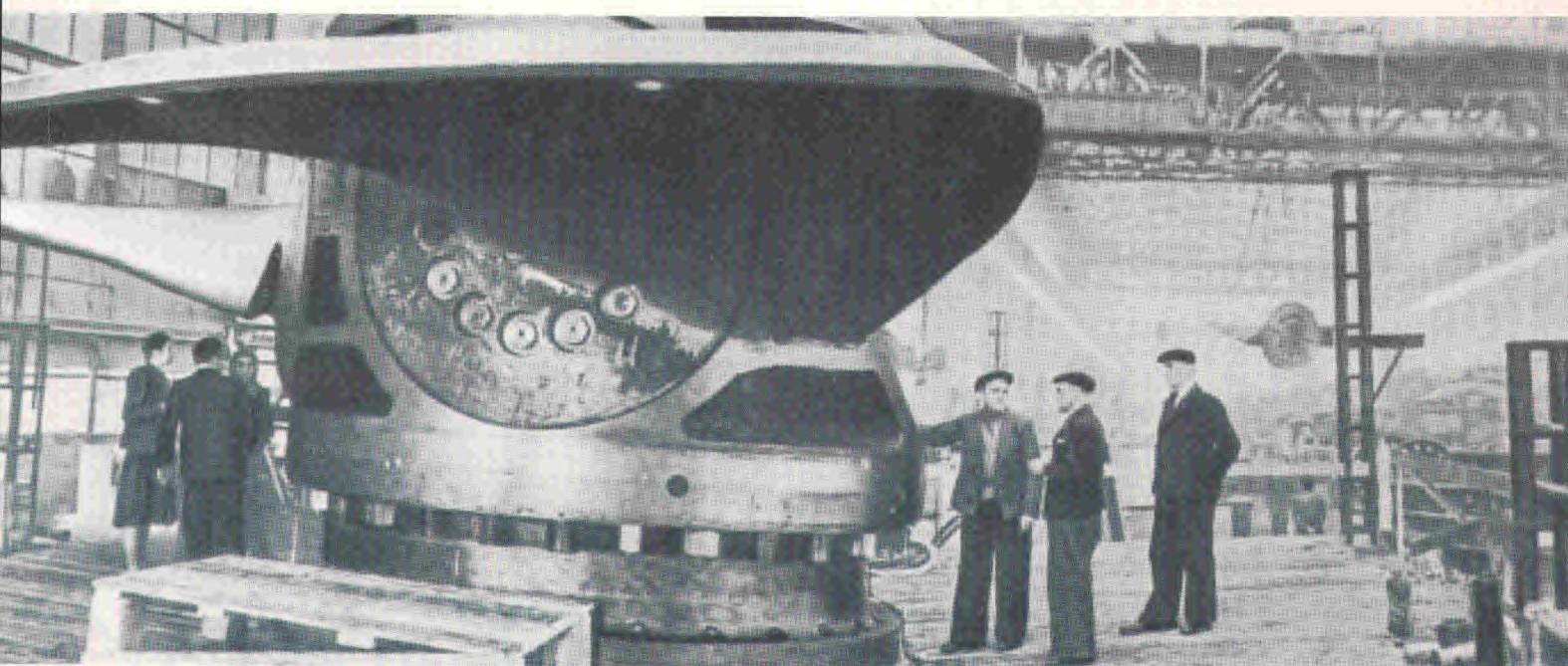
This increase was reflected in the rise in urban population from 8 per cent in 1926 to 44 per cent in 1959. Some of the booming cities are Akmolinsk (101,000), Uralsk (105,000), Ust-Kamenogorsk (117,000), Petropavlovsk (135,000), Chimkent (153,000) and Semipalatinsk (155,000). All are active industrial cities. The most important cities are Alma-Ata and Karaganda.

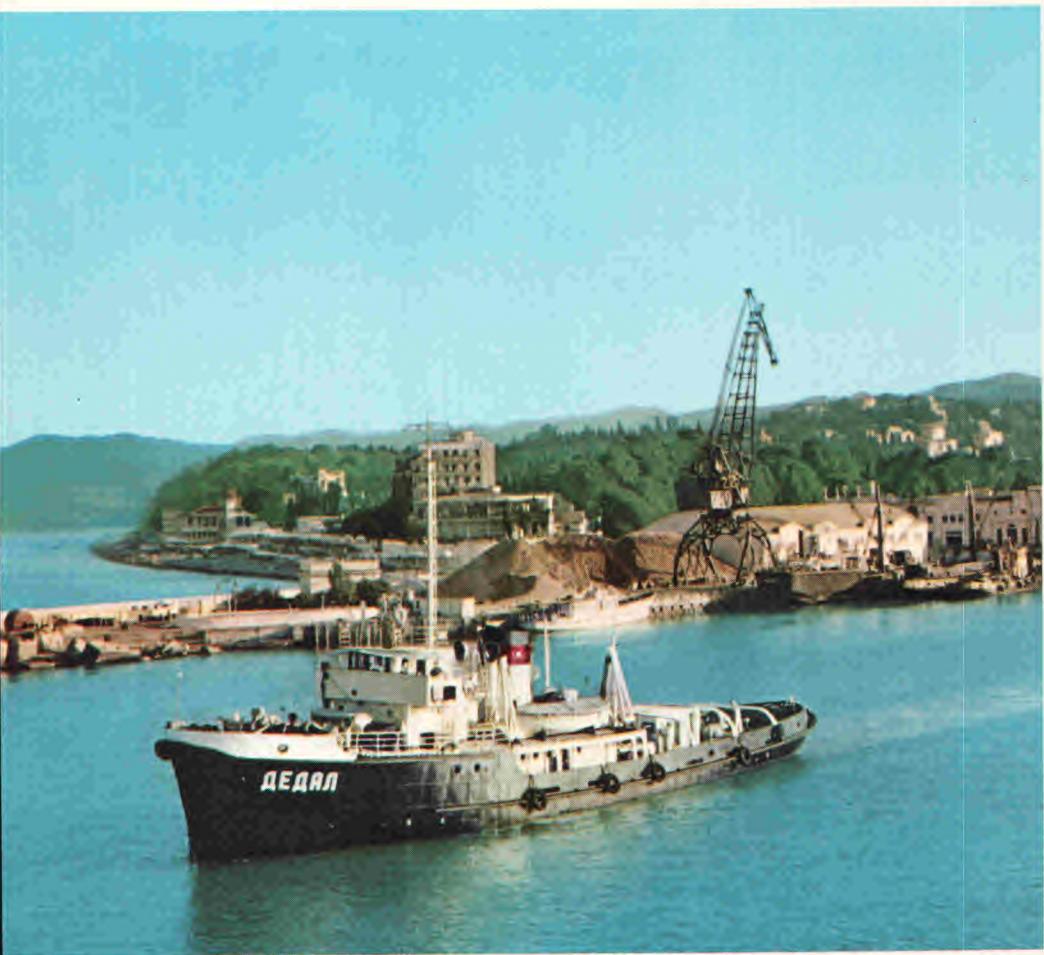
ALMA-ATA (pop. 455,000).

Alma-Ata, the capital of the Kazakh S.S.R., was founded as a fortress in 1854, on the northern slopes of the Trans-Ili Ala-Tau Range. Entirely surrounded by apple orchards—its name means "father of apples"—it is considered one of the most beautiful of Soviet cities. Alma-Ata is a cultural center with a university established in 1928 and the Kazakh branch of the Academy of Sciences.

The city has important machine, textile and food-processing industries.

A corner of a steel plant in Leningrad, where a great turbine is being constructed for shipment to a hydroelectric plant at Gorky, on the Volga. Leningrad is the U.S.S.R.'s foremost producer of heavy machinery and electrical goods.





A view of the harbor of Sochi, a small port on the Black Sea near the border of Georgia. Sochi's exceptionally mild climate has made it one of the more popular health resorts on the Black Sea coast.

the Kara-Kum and in the extreme eastern part of the republic. Because of these resources, mineral and chemical industries have grown. Food-processing and textile industries are also important to the republic's economy.

ASHKHABAD (pop. 170,000).

The capital of Turkmenistan, Ashkhabad was founded in 1881 as a frontier post. It is situated in an oasis at the foot of the Kopet Dagh Range near the Iranian border. Ashkhabad is in an earthquake zone, and in 1948 was largely destroyed by a violent tremor; the city has since been rebuilt. A cultural center, it has a university, a branch of the Academy of Sciences, museums, theaters and motion picture studios.

Ashkhabad is a center of light industry, with many textile and food-processing plants. There is also a large window and glassware factory.

Other major cities of Turkmenistan are Chardzhou (66,000), notable for textile mills, and also Krasnovodsk (42,000) and Nebit-Dag (30,000), which owe their prosperity to oil. The oasis city of Merv (90,000), southeast of the Kara-Kum, is considered in Hindu and Persian tradition to be the cradle of the human race.

The Uzbek S.S.R.

Of all the republics of Central Asia, Uzbekistan is the most developed. Included within its political boundaries is the Kara-Kalpak A.S.S.R. The area of Uzbekistan is 157,876 square miles and its population is 8.1 million. It became a Soviet republic in 1924.

Uzbekistan borders the republics of Kirghizia, Tadzhikistan and Turkmenistan, and, for a short distance, Afghanistan. It is a territory of plains, deserts and plateaus, and in the southeast rise the Alay Mountains. Included in its territory in the northwest is part of the Aral Sea. It contains part of the extremely fertile Fergana Valley and the middle and lower basin of the Zeravshan River.

Agriculture is the economic base of the republic's life. There is an extensive irrigation system of artificial basins and canals, with a total

It is on the celebrated Turksib railroad, which connects Siberia and Central Asia.

KARAGANDA (pop. 398,000).

Karaganda owes its tremendous growth to the exploitation of the huge coal basin of the same name. It has steel mills and metallurgical and engineering industries, which use iron from the Urals. The city did not exist in 1926; six years later, it had a population of 100,000.

The Turkmen S.S.R.

Turkmenistan, with an area of 188,417 square miles and a population of 1.5 million, has been a Soviet republic since 1924. It borders Kazakhstan in the north, Uzbekistan in the northeast and east, Afghanistan and Iran in the south and the Caspian Sea in the west. The least known and the most isolated of all the Soviet republics, it has a narrow belt of mountains in the south; the rest of its territory is steppe and desert. The Kara-Kum, one of the worst deserts in the world, is in this republic.

In Turkmenistan, the lack of water is the major problem. The valleys of the southern rivers which descend from Afghanistan and Iran have been irrigated; and irrigation has been extensive along the Amu Darya, which skirts the northeastern border. In 1951, work was begun on a huge irrigation canal to extend from the Amu Darya across the Kara-Kum to Krasnovodsk on the Caspian Sea. Geological explorations of the subsoil of the Kara-Kum indicate that many subterranean springs exist.

The climate is extremely hot in summer and sunny and mild in winter. On the irrigated land cereal grains, vegetables, grapes, other fruits and cotton are grown. In the steppes there are about 5 million head of sheep and goats. Fish from the Caspian Sea is an important resource for the region.

The Kara-Bogaz-Gol, a gulf on the Caspian Sea, is a rich source of industrial salts. Increasing quantities of oil are being produced from fields in the vicinity of Nebit-Dag near the Caspian Sea, and pipelines carry the oil to Ashkhabad. Sulfur is mined in

length of about 100,000 miles. Uzbekistan provides about 60 per cent of the Soviet Union's cotton, 50 per cent of its rice and 60 per cent of its medicinal herbs. Large areas are planted with vineyards and orchards. The Central Asian section of the Institute for Scientific Research has introduced new vine plants which are more resistant to the winter frosts.

Animal raising predominates in the central western section of the republic, which has many steppes. The *karakul* sheep raised there provide the famous Persian lamb fur. Large quantities of fish are caught at the mouth of the Amu Darya River.

The mineral resources are mainly oil from the Fergana Valley and the southeast, and coal from the Angren mines near Tashkent. There are also deposits of copper, sulfur and marble. Hydroelectric power has given impetus to the growth of industries, among them food-processing, cast-iron, steel, agricultural machinery, paper, shoe and fertilizer factories and cotton mills; there are also oil refineries.

The population density of Uzbekistan is one of the highest in the Soviet Union, but it varies considerably from region to region. There are as few as 13 inhabitants per square mile in the Bukhara region, as many as 285 per square mile in the area of Tashkent, and up to 475 in parts of the Fergana Valley.

TASHKENT (pop. 911,000).

Tashkent is an ancient city, dating back to the 7th century A.D. It is the capital of the Uzbek S.S.R. and the seventh largest city in the Soviet Union. Located in an oasis watered by tributaries of the Syr Darya, it is subject to frequent earthquakes. Because of this the buildings are low; they are almost hidden by the many trees which line the broad streets.

Tashkent is an important link in the Soviet air route to India. It is a thriving industrial center, with some of the world's largest cotton mills and numerous food-processing plants. It is also the region's most

Karl Marx Square and the Palace of the Government in Smolensk. Because of its strategic geographical position on the Dnepr and at a crossroads between Russia and central Europe, Smolensk has played an important role in Russian history. Today it is the commercial and cultural center for the surrounding region.

important cultural center, with the Academy of Sciences of Uzbekistan, a university and numerous other institutions of higher education.

SAMARKAND (pop. 195,000).

Samarkand, with its majestic and romantic ruins, is in an oasis irrigated by the Zeravshan River. It is an ancient city, once the center of a flourishing Moslem culture. The Moslem section of the city is a labyrinth of narrow streets, with beautiful colleges and palaces dating back to the 14th century.

In the 20th century it has become an industrial center with textile and flour mills, leather factories and distilleries.

Other important cities of Uzbekistan are Andizhan (129,000) and Namangan (122,000). Both are textile centers.

The Tadzhik S.S.R.

Tadzhikistan, 55,212 square miles in area, became a union republic in 1929. Within it is the autonomous

region of Gorno-Badakhshan. Its terrain is mainly mountainous, with part of the high Altay, Trans-Alay and Pamir ranges, all of which contain deep valleys. Within it are the highest peaks in the Soviet Union. Most of its 2 million people live in the Fergana, Hissar and Vahsh valleys, which have been irrigated.

A wide variety of crops are raised, including cotton, wheat, rice, sugar cane, flax and jute, apricots, figs, pomegranates, oranges and lemons. Successful hybridization has produced several varieties of grain that grow in the Pamirs at an altitude of 12,600 feet. Geranium and eucalyptus are grown for perfume. Because of the good pastures, there are large herds of sheep, goats and cattle. The *gissar* sheep is famous for its meat and fat, and the *karakul* sheep for its wool. Silkworms are raised in the many mulberry orchards.

The mineral resources of the Tadzhik S.S.R. include coal, oil, lead, zinc, arsenic, uranium and pitch-



blende. Industries based on these resources are not yet well developed. The chief industries of the republic are food-processing plants, cotton mills and silk-spinning plants.

DYUSHAMBE (pop. 224,000)
formerly *Stalinabad*.

Dyushambe is the capital and major city of the republic. In 1897, it was a village of 600 inhabitants, and it

Astrakhan. A view of Lenin Square from the top of the city's walled Kremlin (not to be confused with Moscow's Kremlin). Situated on the delta of the Volga some sixty miles from where that river empties into the northern end of the Caspian Sea, Astrakhan is the major Caspian port and a key trans-shipment point for oil and lumber. The city is especially famous for its fine-quality caviar. Astrakhan fur, famed throughout the world, was named after the city because it was originally brought from Central Asia to Russia by Astrakhan traders.

grew very slowly until after 1926. Besides being an industrial center with food-processing plants and machine and textile factories, Dyushambe has cultural importance as the seat of a university and the Tadzhik branch of the Academy of Sciences.

The Kirghiz S.S.R.

Kirghizia is bordered on the north by Kazakhstan, on the west by Uzbekistan and on the south by Tadzhikistan. It is a mountainous region and has a long eastern boundary with China, from which it is separated by the highest peaks of the Tien Shan mountain system.

Kirghizia has an area of 76,023 square miles and a population of 2 million. It became a republic of the Soviet Union in 1921.

The agriculture of this republic

makes use of an extensive network of irrigation and produces enough cereals for the needs of the population. Potatoes, sugar beets, hemp, cotton, tobacco, grapes and other fruits are also grown.

The base of the republic's economy is animal raising. There are large herds of cattle, sheep and goats, and yaks are raised in the high mountains. The small Kirghizia horses are famous for their endurance.

There are rich coal deposits in the southern and eastern sections. Petroleum, mercury, lead, tungsten, molybdenum, sulfur, arsenic and uranium are also found. There is little heavy industry, however; the largest industries are concerned with food-processing.

The percentage of urban population is 34 per cent. The only large city is Frunze.

FRUNZE (pop. 224,000)
formerly *Pishpek*.

Frunze, the capital, was founded as a fortress in 1873. It was renamed in 1925 for a Bolshevik leader who was born there. Situated in the extremely fertile valley of the Chu River, it has the appearance of a garden city. It is the center of Kirghiz culture, with museums, theaters, opera houses, a university and a branch of the Academy of Sciences.

Frunze has flourishing food-processing, machine and textile industries. It is on a branch of the Turksib railway and has air connections with Moscow and Tashkent.

ECONOMIC GEOGRAPHY

Early History

The economy of Imperial Russia depended largely upon agriculture. But antiquated farming techniques and an inefficient system of land tenure resulted in low and unstable crop yields. Recurrent droughts in some areas, poor transportation facilities and improvident government policies further hindered the development of a prosperous agrarian economy.

Industry did not begin to expand significantly until the middle of the 19th century, and even then it was not until the twenty-five years before World War I that industrialization proceeded rapidly. This latter spurt of activity was due, in large meas-



A quiet scene in Perm, a city of more than 600,000 on the left bank of the Kama River just west of the Ural Mountains. Perm is an industrial center and an important trans-shipment point for goods coming by rail from the Urals. It was founded in the mid-16th century and later named for the Permyaks, a people who still inhabit an area to the north. The city was renamed Molotov early in World War II but its name reverted to Perm in 1958.

ure, to an influx of foreign capital, as well as to an accelerated program of railroad construction. The production of coal, iron and petroleum also increased greatly after 1890. But the depressed condition of Russian agriculture was an insecure economic base for the development of industry, and acute social unrest—marked by strikes and peasant uprisings—culminated in the Revolution of 1917 at a time when Russian industry was still in its infancy.

The Planned Economy

After the Revolution the Soviet government undertook a complete reorganization of the Russian economy. The *theoretical* principle on which they proceeded was that the means of production were "the collective property of the workers themselves." In practice, the consequence of this principle was rigid government control of production.

This reorganization culminated in the planned economy of the Soviet Union. Decisions relating to the economy are made by the government and have the effect of law. Future economic developments are carefully outlined, specific production goals are set, and the measures considered necessary to put the plan into effect are instituted.

The first attempt at economic planning was made in March 1920 by the State Commission for Electrification (*Goerlo*). A program of electrification, involving the construction of numerous power plants, was set up. It was expected that enough

Gorky Park in Rostov-on-Don, a flourishing port situated just above the point where the Don River empties into the Sea of Azov. Rostov has long been an important commercial center and railway junction, and the completion of the Volga-Don Canal has much increased its value as a seaport. The city's ideal geographical location between the northern Caucasus and the great industrial and agricultural centers of the Ukraine has made it a vital communications link between the two regions.



electricity could thereby be generated to double prewar industrial production in ten or fifteen years.

In February 1921, the State Planning Commission (*Gosplan*) was established. This Commission is still the principal planning authority in the U.S.S.R., and it is charged with working out a unified economic plan for the whole country.

FIVE YEAR PLANS

Since 1928 there has been a series of Five Year Plans designed to expand industry and introduce modern technological methods. The First Five Year Plan (1928-32) emphasized the development of heavy industry, but

in the Second (1933-37) more attention was to be paid to the production of consumer goods. However, as Germany rearmed and war loomed in Europe and Asia, the planners turned to the production of war materials. Defense industries were expanded during the Second Five Year Plan, and the Third (1938-42), which was interrupted by the outbreak of war with Germany in June 1941, also stressed war production. During the Third, a vast grain-growing area was opened in the eastern Soviet Union.

The repair of war damage and reconstruction of the Soviet Union's shattered industrial system was the



immediate objective of the Fourth Five Year Plan (1946-50), initiated immediately following World War II. Both this and the succeeding Plan (1951-55) were oriented toward the military needs of the "Cold War." The Sixth Five Year Plan, which was to have run from 1956 to 1960, was particularly concerned with the construction of large hydroelectric facilities and the development of oil, gas, coal and peat resources, textile manufacture, automation and atomic energy. Six thousand new plants were scheduled to be built.

The Plan ran into difficulties and was canceled in September 1957. It was replaced by a Seven Year Plan (1959-65), which had as one of its main objectives increasing the production of consumer goods and thus raising the standard of living. This longer plan envisaged a general increase in output of 80 per cent; the manufacture of capital goods was to rise by 80-85 per cent and of consumer goods by 62-65 per cent. However, as had been the case in previous Plans, the increase in production of consumer goods has been considered secondary, and the goal has not as yet been met.

Agriculture

Like other sectors of the Soviet economy, agriculture is under the direction of the general economic plan. The bringing of agriculture under state control through the setting up of state and collective farms was largely completed between 1930 and 1940. (In 1928 there had been about 26 million independent peasant farms in the U.S.S.R. and only a few state and collective farms.) The Eighth Congress of the Communist Party had decided in March 1919 to set up state farms (*sovkhозы*) and collective farms (*kolkhoзы*) formed from the land of independent peasants. Collective farms differ from state farms in that the former are worked by villages which share a portion of the profits, while the latter are exclusively state property, the profits from which are not divided.

Until the outbreak of World War II, the tendency was to have small collective farms in an attempt to achieve greater efficiency. Since then, the total number of farm units has been greatly reduced, with an increase in acreage of each unit. The number of state farms increased from 4159 in 1940 to over 9200 in 1961, while the number of collective farms decreased from a peak of





254,000 in 1949 to 44,000 in 1961. In December 1959, the Central Committee of the Communist Party approved a resolution to create *kolkhoz* unions. These unions were to embrace a number of collective farms in order to organize work in common and use their financial resources more efficiently and economically.

Despite this increased organization, however, a small amount of independent farming—but not ownership of land—is still allowed in the Soviet Union.

Before 1958, machines such as tractors, harvesters, sowers, reapers and binders, used on collective farms, were kept at tractor and machine stations, which had been established in 1927. There were 2446 of these stations in 1932, 7000 in 1941 and 8000 in 1957; they handled 17 million tractors, 420,000 reapers and binders and 11 million other machines. In 1958 sale of agricultural machinery to the collective farms was begun, and the tractor stations were made into repair and technical stations. A *kolkhoz* now may possess all the necessary equipment for production, including big agricultural machines.

THE MECHANIZATION OF AGRICULTURE

A notable feature of Soviet agriculture is the constant increase in mechanization which, besides increasing production, frees labor for secondary industry. It facilitates the expansion of areas under cultivation, especially in the dry lands now being irrigated.

Since the Revolution of 1917 there has been a remarkable increase in the amount of cultivated land—from 292 million acres in 1913 to 505 million acres in 1961. This new acreage came from forest land, steppes, desert areas and marshy regions. All the republics have experienced a large increase, but it has been especially high in the Russian S.F.S.R. (60 per cent since 1913) and in Kazakhstan (almost 700 per cent, from 10.4 million acres in 1913 to 70.6 million acres in 1960). This expansion of acreage was largely a gamble, for the steppe lands have variable rainfall and a series of dry years may produce dust bowls. Some

Crescent-shaped Lake Baykal, situated in southern Siberia not far from the border of Mongolia, was called "the holy sea" by ancient inhabitants of the region. The deepest lake in the world, it has a maximum depth of more than 5300 feet.

evidence that this has already begun to happen is available.

Some increases in yield per acre have been obtained by the greater use of agricultural machinery and chemical fertilizers, the rotation of crops, irrigation, seed selection and other improvements. However, the Soviet planners until the mid-1960s depended too much on machinery and not enough on fertilizers. In 1963 plans were afoot to increase the output of artificial fertilizers greatly.

Much of the U.S.S.R.'s agricultural area is too dry for commercial crops. In order to increase agricultural production, a plan to fight drought was announced in 1950.

Under this program existing irrigation systems were reorganized and extended. Artificial lakes and reservoirs were filled from the Dnepr, Don and Volga rivers, the rivers of Central Asia, such as the Amu Darya, and the Ob in Siberia. These

irrigation systems supply water to the desert zones east of the Caspian, to the central Ukraine and to northern Crimea and Turkmenistan.

Crop areas are being protected from hot dry winds by strips of forests planted as windbreaks. When completed, the forested region is supposed to extend over a huge area from the western border to the Ural Mountains, south of a line joining Kiev with Magnitogorsk.

AGRICULTURAL PRODUCTS

Because of the semiarid climate, the flat plains and the grassland soils, grain farming predominates in the Soviet Union. The type of grain depends on the climate.

Wheat is the major crop. The U.S.S.R. is in fact, according to Soviet estimates, the world's largest producer of wheat. In 1960-61 about 149 million acres were under wheat farming as compared to 80 million acres in 1913. Wheat production rose

from about 20 million metric tons in 1913 to about 38 million in 1938 and 64 million in 1960-61.

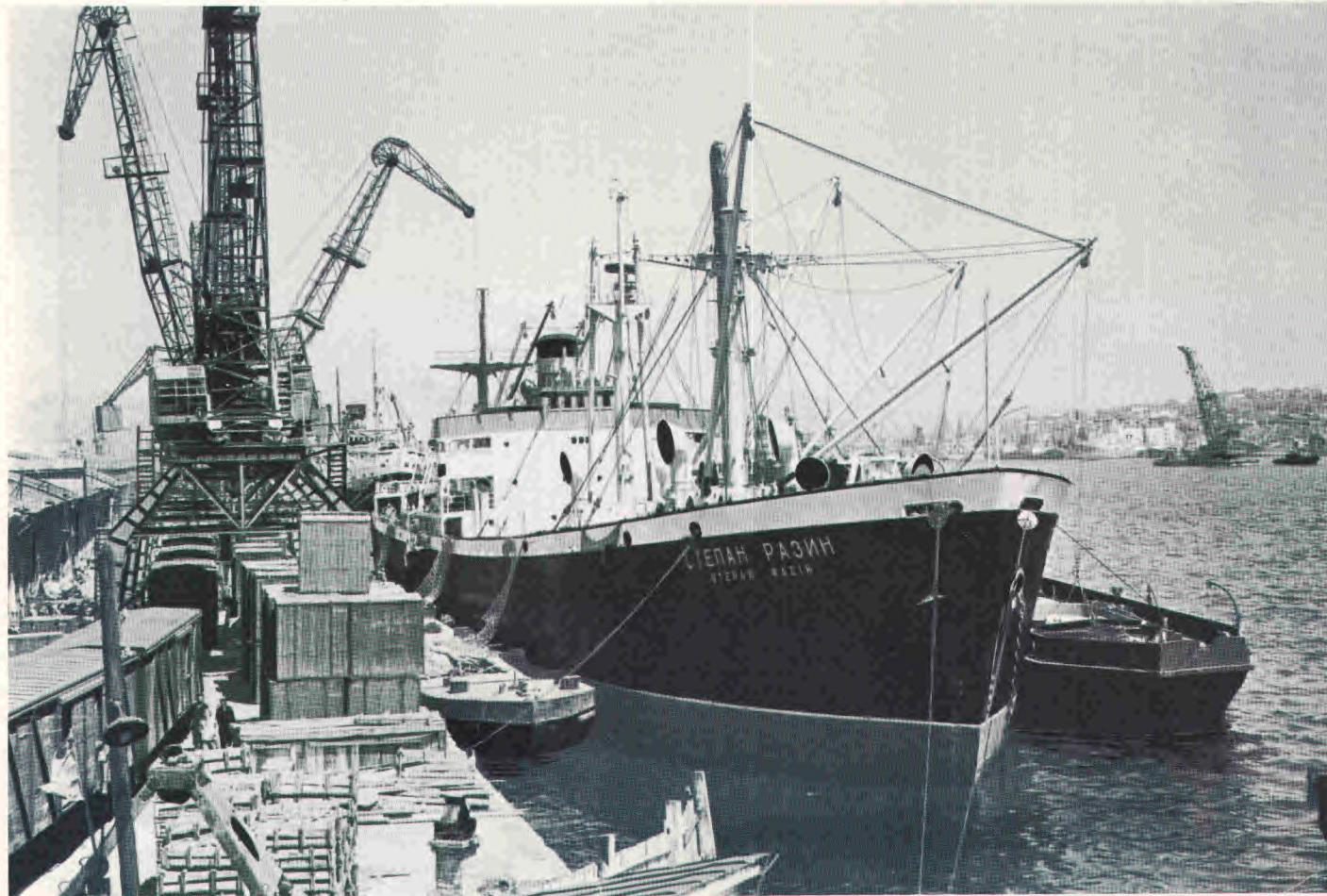
However, the annual increase of 8 per cent, which was planned, did not materialize. The new lands, Siberia and the Ukraine all had poor crops. In order to meet its needs and fulfill its commitments the Soviet government, on Sept. 16, 1963, signed an agreement to purchase from Canada 5.3 million long tons of wheat and 575 long tons of wheat flour by July 1964. The Soviet government has three years in which to pay \$500 million for this grain.

The Canada-Soviet agreement stimulated interest in the United States for a re-evaluation of current trade regulations, which has severely limited mutual trade. Spokesmen for United States agriculture have indicated interest in increased trade with the U.S.S.R.

CROP DISTRIBUTION

All the republics of the U.S.S.R. grow wheat, research having developed varieties such as the Siberian red which will grow in cold areas. Other important grain crops are rye,

Vladivostok, the largest Soviet port on the Pacific Ocean, is the extreme southeastern terminus of the Trans-Siberian railroad. By air, the city is about the same distance from New York as from Moscow. Its position on the Pacific (actually, the Sea of Japan) and its proximity to the Manchurian and North Korean borders give it great commercial and military value.



oats and corn. Rye is grown in the northwest, where the climate is cool but temperate. Flax, potatoes and fodder are also grown in this area. The amount of land devoted to rye is diminishing, as is the annual production. In 1960-61, only 16 million metric tons of rye were grown, as compared to 26 million in 1938.

Corn is grown in many of the warmer areas where there is sufficient rainfall—the Ukraine, the black-earth region of the Russian S.F.S.R., the Volga basin, the northern Caucasus, Georgia, the Urals, western Siberia and Moldavia. Production was 18.7 million tons in 1960-61.

Potato production increased from 20 million metric tons in 1913 to 84.3 million tons in 1960-61. Potatoes are grown in rotation with wheat and rye in the cool moist areas of the Baltic republics, the Russian S.F.S.R., Belorussia and the Ukraine.

Sugar beets, an important crop, are grown in rotation with grain in the rich southern agricultural regions of the Ukraine and the black-earth area of the Russian S.F.S.R.

Sunflowers are raised both as a food crop and for oil. The output of sunflower oil has quintupled in the last half century. Seed production rose from an annual average of 2.1 million metric tons in the years 1948 to 1952 to 4.7 million in 1961. The major areas of cultivation are the black-earth belt, western Siberia and the Russian S.F.S.R., which grows 55 per cent of the Soviet total. The Ukraine grows 35 to 40 per cent of the total. Moldavia and Kazakhstan also produce sunflower seed.

VEGETABLES AND FRUITS

The U.S.S.R. lacks the variety of commercial vegetables, poultry, dairy products, nuts, fruits and berries produced in the United States. However, some fruits are grown in the Russian S.F.S.R., in Belorussia and in the Ukraine. In the oases and areas of Mediterranean climate, such as the Crimea and parts of Transcaucasia, grapes and Mediterranean fruits thrive. Tea has been introduced in Georgia, mainly in the autonomous republics of Adzharia and Abkhasia, and in Azerbaydzhan.

FIBERS

Fibers, such as flax, hemp and cotton, are important crops. About 500,000 metric tons of flax fiber (70 per cent of the world total) are grown annually. The principal grow-



Komsomolsk, called "the City of Youth" because it was built during the 1930s by members of the Komsomol (Young Communist League), lies on the Amur River about 600 miles north-northeast of Vladivostok. It is now an important industrial center of the Soviet Far East.

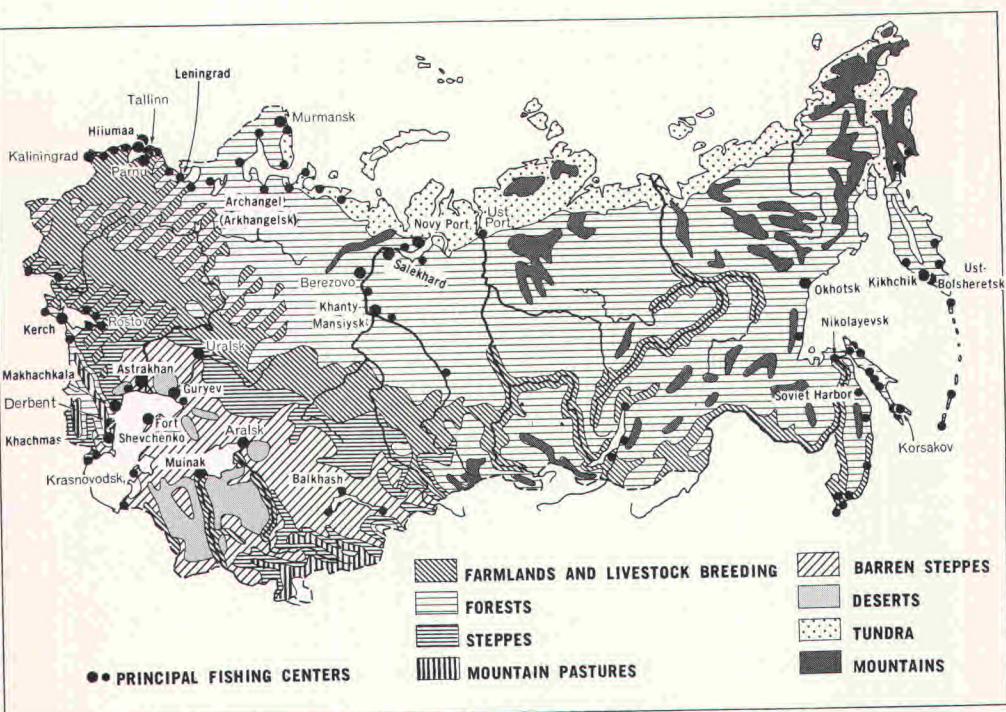
ing areas are the central western region of the Russian S.F.S.R., the Baltic republics, Belorussia and the northwestern Ukraine.

Cotton requires a warmer climate than flax, and most of the 5.4 million acres under cultivation in 1960 is in Central Asia and Transcaucasia. The leading producer is Uzbekistan, with more than 60 per cent of the U.S.S.R.'s cotton cultivation. Next come Turkmenistan, Tadzhikistan, and Azerbaydzhan, each with from 110,000 to 220,000 acres under cultivation. In 1960, 4.5 million tons

of raw cotton were produced.

Most of the cotton cultivated is of the United States "upland cottons" variety, which gives good quality fibers. Recently, Egyptian cottons with long, fine strong fibers were introduced. The production of cotton-seed oil has increased, and was estimated at almost 3 million metric tons in 1961. The Seven Year Plan calls for 0.7 million tons of cotton-seed oil to be produced annually by 1965.

Silkworm culture is increasing in Central Asia, Transcaucasia, Uzbek-



Utilization of the Soil and the Principal Fishing Ports



Field work on a collective farm near Kharkov, in the eastern Ukraine. Kharkov, the fifth largest city in the U.S.S.R., serves as a communications center for the surrounding agricultural and industrial region, which is one of the richest in the Soviet Union.

istan, Tadzhikistan, Turkmenistan, Georgia, Armenia and Azerbaijan. The northern slopes of the Greater Caucasus Range and the shores of the Black Sea are especially suited for cultivation of the mulberry trees on whose leaves silkworms feed.

Because the Soviet Union imports natural rubber, the manufacture of synthetic rubber has been developed. Plants such as *tan-saglivz*, *kak-saglivz* and *krim-saglivz*, the sap of which provides a lactic material, are grown. The first two plants are of Central Asian origin, and the third grows in the Crimea.

ARCTIC AGRICULTURE

Many thousands of farms exist in the Arctic regions of the U.S.S.R., from the Kola Peninsula to Kamchatka. The first experiments were started in 1923 around Murmansk. Other outposts, like Igarka on the Yenisey specialized in the production of cabbages, potatoes and peas. Similar farms were developed in the basins of the Indigirka and the Kolyma rivers, providing some of the agricultural products needed for the many workers employed in the mines.

ANIMAL HUSBANDRY

Livestock raising is less advanced than other branches of Soviet agriculture. During World War I and the period following, large numbers of domestic animals were destroyed. In the years before World War II collectivization of agriculture resulted in widespread slaughter of animals by peasants. This they did rather than hand their property over to the collective farms. Soviet livestock raising took decades to recover from this loss. Indeed, many experts say it never has. Since World War II greater attention has been paid to modernizing and expanding the production of meat and dairy products.

In the 1960s the output of meat and dairy products was inadequate for the country's needs. In 1962, the U.S.S.R. had only 82 million head of cattle, 66 million pigs, 136 million sheep and 8 million goats.

The rearing of animals is not localized in any one part of the country. Oxen are found in the north of Siberia and cows graze alongside reindeer in the northern plains and on the high pasture areas of the Caucasus and Altay Mountains. About two thirds of all cattle are raised in the European U.S.S.R.;



Cattle on a collective farm in the Ukraine. Under the economic plan of the Soviet Union, agriculture is based on state-owned-and-operated agricultural centers (sovkhоз), and collective agricultural centers (kolkhoz), where production and harvesting are conducted on a collective basis.

but cattle raising is increasing in Kazakhstan, Western and Eastern Siberia and the Soviet Far East. Pig breeding is mostly in the European areas. Sheep and goats flourish best in the semidry and dry regions, on the steppes of the Russian S.F.S.R. and in Central Asia.

Three fourths of the world's reindeer are in the Soviet Arctic. They are valuable animals because they provide meat, milk, fat, skin and horn and are also used as a means of transportation. The nomad tribes of the extreme north have benefited from modern breeding methods introduced by the government, and fodder is grown extensively. The experimental station of Khibing on the Kola Peninsula pioneered this work.

MEAT AND DAIRY PRODUCTS

The diet of the Soviet people consists largely of grain and vegetables. In terms of such a large population the production of meat, milk, eggs and other dairy products is small, and the quality is relatively low. Efforts to increase the production and raise the quality of meat, milk, cheese and related foodstuffs are planned. The hope is that improvement of the breeds of domestic animals will help accomplish this aim.

Meat-packing plants are found all

over the Soviet Union. The main centers of consumption, such as Moscow, Leningrad, Kiev and Kharkov, have large meat-packing plants. The plants in Moscow and Leningrad are comparable in size and technical equipment to those in Chicago.

FISH

Fish is an important source of food for the Soviet people. About 3 million tons of fish are caught annually, and the U.S.S.R. ranks third in the size of the catch, following Japan and the United States.

Large-scale fishing is carried on in rivers and lakes, as well as in the oceans. In addition to exploitation of the European rivers, such as the Don and Volga, the fishing of Siberian rivers, especially the Ob and the Yenisey, is being intensified. Numerous lake reservoirs are also being fished. Many thousands of tons of salmon and sturgeon are caught in fresh waters.

There are three regions of salt-water fishing. The southern includes the Black Sea, the Sea of Azov and the Caspian Sea. The northern region consists of the Baltic Sea and the

Arctic Ocean from Murmansk to the Bering Straits. The Pacific Ocean and its related seas constitute the eastern region.

One of the leading fishing grounds is in the Caspian Sea off the city of Astrakhan. The area yields large quantities of shellfish, sardines, herring, greyling, silurus and sturgeon. Other important fishing grounds in the Caspian are along the coast of Daghestan, especially at Makhachkala and Derbent where there are herring fisheries.

The canning industry of the southern region is centered at Astrakhan and Guryev on the Caspian and at Rostov-on-Don, Zhdanov (Mariupol) and Taganrog on the Sea of Azov.

ARCTIC FISHERIES

The Arctic area is becoming increasingly important because of the plentiful supply of fish, the population centers growing up near mineral deposits and the opening of the Northern Sea Route.

Motorized fishing fleets that sail the seas of Norway and the Barents Sea are based at Archangel and Murmansk. There are canneries on the lower Yenisey River, and on the

Tamir Peninsula there is one for both fresh and salt-water fish.

The island-fringed north Pacific coast constitutes one of the greatest fishing grounds in the world. Herring, salmon and cod are caught, and canneries have been built at Okhotsk, Magadon, Ayan, Nikolaevsk, Vladivostok and Sakhalin.

Seal fishing and whaling are also important industries. The U.S.S.R. ranks fourth in the world, after Norway, Japan and the United States, in the number of whales caught.

Forests

The Soviet Union has about one fifth of the forested area of the

Pouring molten steel at a newly built steel plant in the Urals. The development in recent years of coal and iron deposits in the Urals, Siberia and the Soviet Far East has been accompanied by the establishment of numerous large industrial complexes east of European Russia and the Ukraine.

world. Forests cover 40 per cent of the entire country, but only two thirds of the forested area is accessible. This consists mostly of the taiga—the northern coniferous forest which stretches from the Baltic to the borders of the Pacific.

One of the major problems of the lumber industry is that in heavily forested areas the population is too sparse to supply the labor for large-scale operations. Moreover, markets are usually far away and transportation facilities inadequate. Forced labor by state prisoners has been used in many instances. Centers of operation are now being located on river banks so that the logs can be

A steel plant at Zaporozhe, an industrial city situated on the left bank of the Dnepr River in the southern Ukraine. Zaporozhe—which means “beyond the rapids”—consists of an older residential section in the southeast (called Alexandrovsk until 1921) and a new industrial section to the northwest.

floated downstream. Large sawmills have been built along the Ob, Irtysh, Yenisey and Lena rivers. Archangel (Arkhangelsk), Novosibirsk and Krasnoyarsk are milling centers.

The pulp, paper and cellulose industries are large. About 700,000 tons of pulp, 2.5 million tons of paper and 2 million tons of cellulose are produced annually.

Before World War II, plants were concentrated in the west around Leningrad, but now there are great factories at Barnaul and Krasnoyarsk in southern Siberia and Komsomolsk in the Soviet Far East.

Two thirds of the wood cut in the U.S.S.R. is for industrial use. The rest is for fuel.

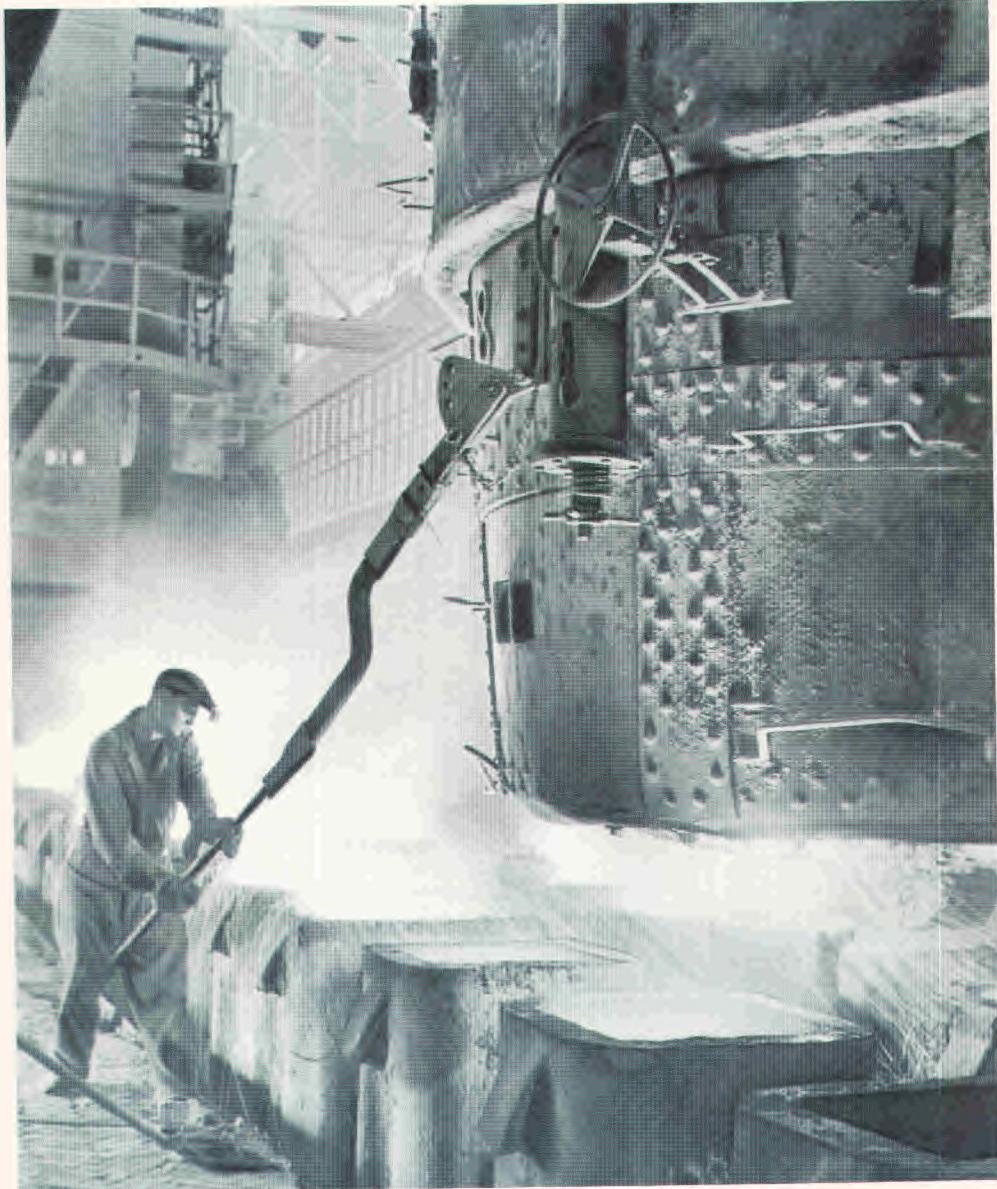
Lumber is also exported. The principal exporting regions are around the White Sea and are served by the ports of Archangel, Belomorsk, Onega, Mezen and Kem. Leningrad is the main port of lumber exports from the northwest European area. The Baltic region is served by Riga, Siberia by Igarka and the Soviet Far East by Vladivostok.

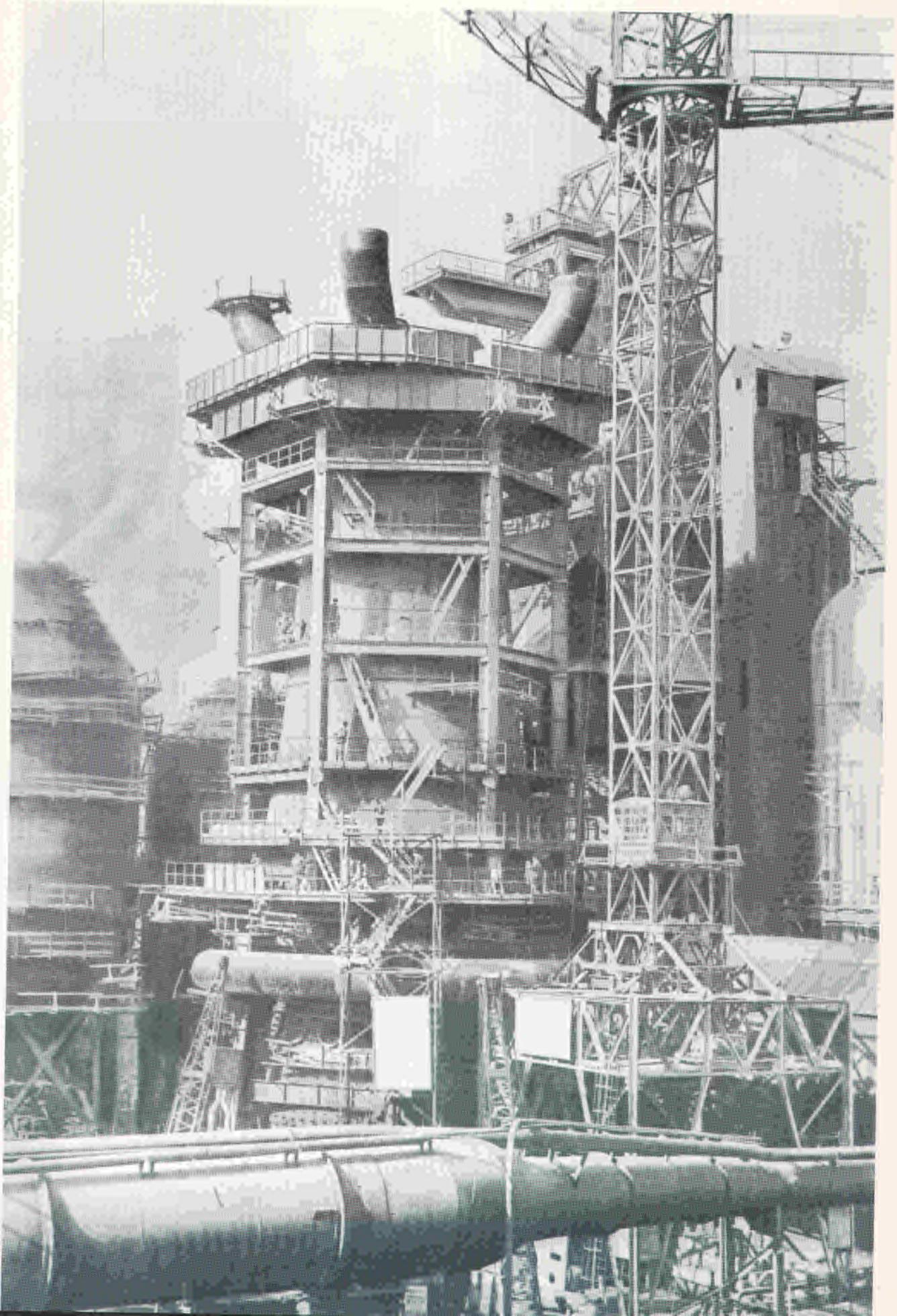
Industry

THE ORGANIZATION OF INDUSTRY

During the half century since the Revolution, the Soviet Union has been transformed from a predominantly agricultural country into an industrial power second only to the United States. In 1913 at least 75 per cent of the population was engaged in agriculture and only 9 per cent in industry and construction. Today, 43 per cent of the labor force is in agriculture while 33 per cent is in industry.

In theory, industry is centrally planned and controlled. The basic unit is the factory, the size of which can range from a large plant to a small workshop. In turn, the factory forms part of a "trust" or "combine." Trusts are administrative organizations embracing factories that produce the same product; this is a form of horizontal concentration. Combines are organizations that bring together factories which depend on one another for raw materials or semi-manufactured products or parts.







Minsk, capital of the Belorussian S.S.R., traces its origin to the 11th century. It has become a large economic and cultural center, largely because of its position at the junction of railway lines and roads connecting Moscow and Riga with the industrial cities of the Ukraine.

Until 1957 both trusts and combines were directed by the various ministries charged with administration of specific industries or groups of industries.

A fundamental change has taken place since 1957. In order to decentralize the management of industry three fourths of the plants have been placed under the control of 104 Economic Councils. (Sixty-eight are in the Russian S.F.S.R. and 11 in the Ukraine.) These councils control nearly the whole Soviet production of coal, iron, steel, petroleum, motor vehicles, turbines and textiles. The ministries that previously administered these branches of industry have either been abolished or transformed into supervisory bodies, and the State Planning Commission (Gosplan) has been given more authority.

SOURCES OF ENERGY

Progress in industry depends on the development of the sources of

power. These are principally coal (including lignite), petroleum, methane and electricity.

COAL

The principal source of energy in the U.S.S.R. is coal, which includes lignite. Estimated reserves amount to 8670 billion metric tons. The annual production of coal rose from 29 million metric tons in 1913 to 510 million in 1961 and is continually increasing. The U.S.S.R. is second to the United States in world production.

Coal is produced from more than 1000 underground and 50 open-pit mines. The most important fields, which together produce more than four fifths of all Soviet coal, are the Donbas (an abbreviation of Donets Basin), the Kuzbas and those of Moscow, the Urals and Karaganda.

The Donbas field in the Ukraine has always played a leading role in the economy of Russia. Although it

has modest reserves (6 per cent of the total), in tsarist times it supplied 80-90 per cent of the coal. The Donbas still produces the largest amount of any field and is responsible for about 40 per cent of total production. In the Donets Basin area, complex steelworks and important concentrations of heavy industry have been established. They use the rich beds of iron found in the fields of Krivoy Rog to the west. The whole area was devastated during World War II, but rebuilding has been rapid.

The Moscow coal field, situated between Tula and Ryazan, has been increasing its output. Although the coal is not of the best quality, the field is well situated for mining. The coal is used for the production of energy and in the chemical industry.

The Ural Mountains, which are rich in metals (primarily iron ore) and, in the western sector, in petroleum, are not so favored with coal. Coal resources are scattered in fields on the western and eastern slopes, especially near Kizel and in the area from Sverdlovsk to Chelyabinsk. Because of the rich iron deposits in the region, heavy industry has been developed which is equal and even superior to that of the Ukraine.

THE KUZBAS FIELD IN SIBERIA

The Kuzbas field is the basis for the economy of Western Siberia. Production started in 1896 to serve the Trans-Siberian Railway, but the district became important in the 1930s when a great combine was formed to mine iron from the Urals and coal from Kuznetsk. The Kuzbas is second only to the Donbas in the quantity of coal produced.

The Karaganda coal field in Kazakhstan is one of the most recent to be developed. Before World War I the coal field was worked by a British company, but it was closed down in 1919; only in 1930 was it reopened. Production has expanded rapidly to serve the constantly increasing need for coal in the Ural iron regions—with which the field is joined by railways. The development of the copper industry south of Lake Balkhash has also stimulated demand for the coal.

In addition to these major coal fields, there are less important ones throughout the country. Some in Asia have huge reserves which have been barely exploited. In the European U.S.S.R., the area around Pechora,

located north of the Arctic Circle, has very large reserves, and the coal is excellent for coking. Mining has expanded there since the construction of the Arctic Railway, which links Pechora with steel industries of the northwest. These industries use the rich iron deposits of the Kola Peninsula and of the region near Lake Onega.

Siberia and the extreme Soviet Far East also possess huge coal reserves, the mining of which is now being developed to help the industrialization of the area. The southern deposits near the Trans-Siberian Railway are particularly important. The deposits at Bureya supply the new industrial plants of Komsomolsk in the Soviet Far East.

PETROLEUM AND METHANE

The petroleum industry dates from 1873, when foreign interests developed the oil fields at Baku in the

Caucasus. Production increased, reaching 11.5 million tons in 1901, half the petroleum produced in the world. After the Bolshevik Revolution, the rich Baku area became a center of intrigue and international struggles; it was not under full control of the Soviet government until 1920. Until the outbreak of World War II the oil fields of Baku, Grozny and Marinkop (all in the Caucasus) provided 90 per cent or more of Soviet petroleum production. Since the war the oil fields between the Volga and the Urals have become the leading centers.

The annual production of petroleum in the U.S.S.R. increased from 4 million metric tons in 1921 to 31 million in 1940, 38 million in 1950 and 166 million in 1961. The Soviet Union also produces a great quantity of methane, a natural gas

ordinarily found with petroleum. There are rich deposits of methane in the area between the Volga and the Urals and in Ciscaucasia, the Ukraine, Central Asia and Siberia. Altogether the reserves of methane amount to 18-20 trillion cubic meters.

The most important petroleum-producing region in the U.S.S.R. extends from the Volga to the Urals and is commonly known as the "Second Baku." The major fields are in the regions of Kuybyshev and Perm and the Bashkir A.S.S.R. In 1957 the Kuybyshev area alone produced more petroleum than Baku, and in 1960 the area north of Kuybyshev produced three times as much.

PIPELINES

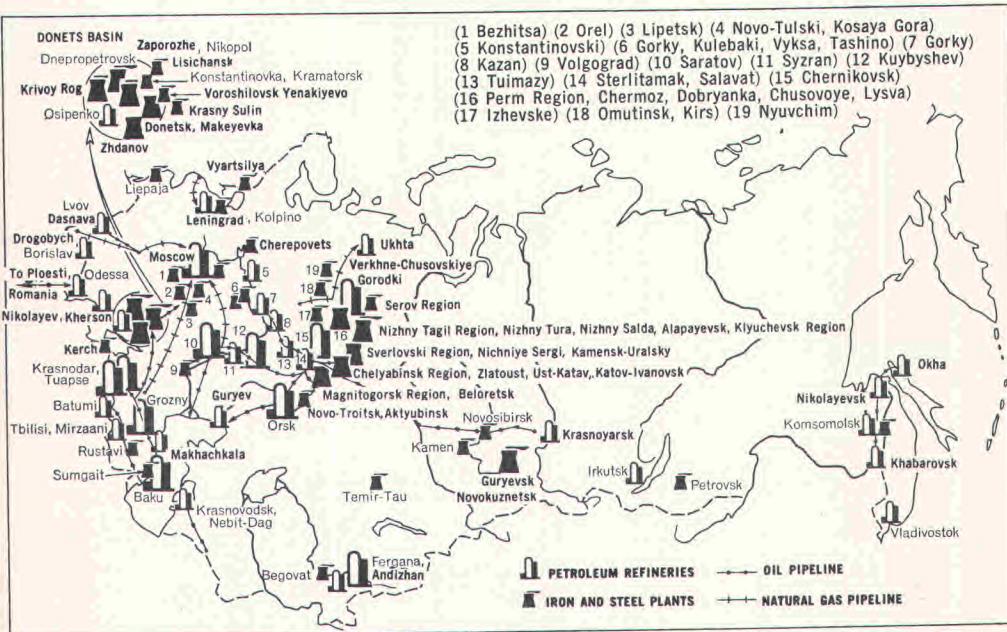
From this region natural gas and oil pipelines run to Moscow and other industrial centers, as well as

A rural horse-drawn cart in a small Ukrainian village. In the background is seen a typical izba (log hut), with thatched roof and walls plastered on the outside.





The Light of Mingechar, by contemporary Soviet artist M. Abduayev, was painted in 1948—three years after this industrial city in central Azerbaijan S.S.R. was first developed. Today Mingechar is the site of a large dam and hydroelectric station, and supplies power for the Baku industrial district on the western shore of the Caspian Sea.



Major Steelworks and Petroleum Refining Centers

to the industrial districts of the Urals and Siberia. A pipeline 1000 miles long takes petroleum from Tuymazy to Omsk, which is becoming one of the most important Soviet centers for the refining of hydrocarbons.

To the south of the "Second Baku" there are the great Caucasian and Caspian Sea regions, including Baku. The basin of the Kura River in Azerbaijan and the area around the southern part of the Caspian Sea constitute one of the richest oilfields in the Soviet Union. On the Apsheron Peninsula near Baku advances have been made in drilling techniques.

Sixty-two miles from Baku, in the Caspian, an artificial island has been built so petroleum can be pumped from beneath the sea bed. This spot yields one third of all the petroleum produced in Azerbaijan. There are also oilfields on the opposite shore, in Turkmenistan, especially in the areas of Nebit Dag, Kurn Dag and Cheleken.

The oilfields of the north-central Caspian region include Daghestan, Grozny, the basins of the Ural and Emba rivers, the lower region of the Volga and the desert zone of Ust-Urt. These fields are also rich in natural gas.

Along the Baltic Sea from Leningrad to Latvia there are deposits of petroleum and gas. The latter is brought by pipeline from Kokhtla-Yarve to Tallinn and Leningrad. Methane is abundant in the area of Dashava in the Ukraine, from which it is transported to Minsk, Leningrad, Kiev and Moscow. Production of hydrocarbons around Poltava and Kharkov has been increased.

In the northern regions, both north and south of the Polar Circle, are rich petroleum deposits. The most recent to be developed are near Murmansk on the Kola Peninsula. Other fields are in the basin of the Pechora River, around the lower Ob and in the area of the lower Lena. The basin of the Vilyuy, a tributary of the Lena, is especially rich in methane.

Oilfields in the Sakhalin and Kamchatka areas in the Soviet Far East are in full production. There are also deposits in Turkmenistan, Tadzhikistan, Kazakhstan and Kirghizia.

The Soviet Union had about 11,000 miles of pipeline in 1960. Because of the increasing use of oil and methane, this network is being expanded. Construction of pipelines from the Kuybyshev fields to Poland,

East Germany, Czechoslovakia and Hungary was begun in 1960. A 25,000-mile system of natural gas pipelines has been planned and is now being built.

ELECTRICITY

Electrical power has been the main factor facilitating the growth of Soviet industry. The *Goerlo* plan of 1920 gave priority to the construction of electrical-power plants and the production of electricity increased rapidly. In 1913, 2 billion K.W.H. had been produced. Annual output increased to 5 billion K.W.H. in 1928, 91 billion K.W.H. in 1950 and 327 billion K.W.H. in 1961. Seventy per cent of the energy produced today is consumed by industry.

Thermoelectric plants provide most of the power, but hydroelectric energy now makes up about 20 per cent of the total production of electricity, and the construction of additional hydroelectric plants is planned.

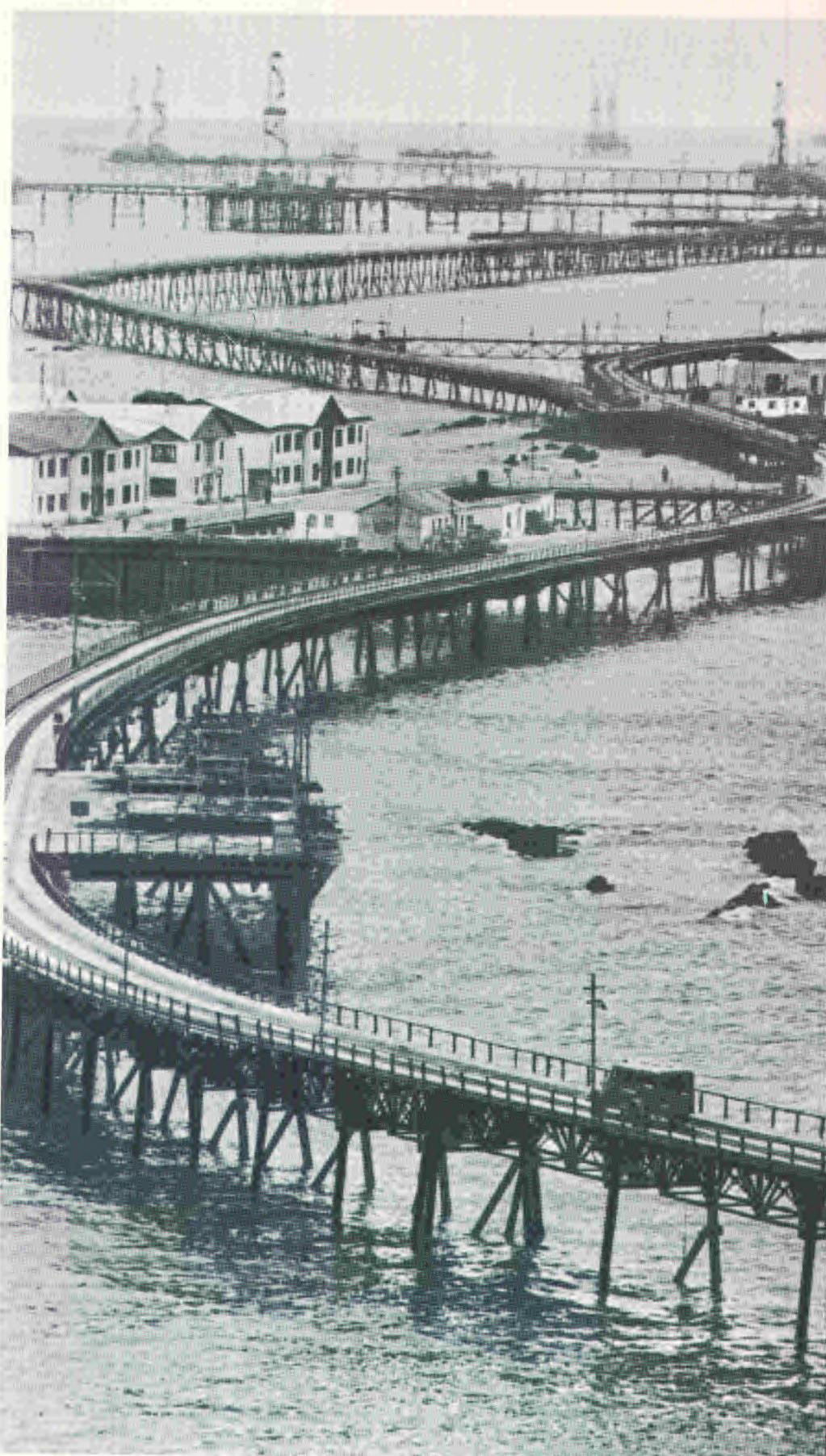
Petroleum, coal, lignite and peat are the fuels used by the thermoelectric plants. Plants in the Donbas usually burn coal. Petroleum is the main fuel in the Caucasus, but lignite and peat are also used. Dubrovka near Leningrad, Elektrogorsk and Satena near Moscow and Yaroslavl, Ivanovo and Gorky also burn lignite and peat.

In recent years a number of hydroelectric centers have been established. On the Volga are Saratov, with a capacity of 1 million K.W., Volgograd, with a capacity of 2.6 million K.W. and Kuybyshev with a capacity of 2.1 million K.W. Ust-Kamenogorsk on the Irtysh River has a capacity of 2 million K.W. Bratsk on the Angara River has a capacity of 4.5 million K.W. as does Krasnoyarsk on the Yenisey.

Although misleading statistics have been issued, it is known that one small atomic energy station (5000 K.W.) was in operation at Dubna in 1962, and two others with a planned capacity of 350,000 K.W. are under construction.

The first link of a high-voltage transmission network was opened in 1955. It connects Kuybyshev with Moscow, a distance of 630 miles, and can carry 400,000 volts.

Baku, one of the U.S.S.R.'s largest cities, is the country's largest center for the production of petroleum. Greater Baku includes the whole peninsula of Apsheron. The Baku oil fields, partly shown here, extend far under the Caspian Sea.



**PRODUCTION OF METALS
AND ALLIED INDUSTRIES**

The Soviet Union is rich in metal ores. New deposits are being constantly discovered. Because these deposits are often located in deserts, mountain areas or in the Arctic, problems of transportation, organization and labor supply must be solved before they can be exploited. It is estimated that the U.S.S.R. has 33 per cent of the world's deposits of phosphate, 41 per cent of the iron, 54 per cent of the potassium, 77 per cent of the thallium and 88 per cent of the manganese.

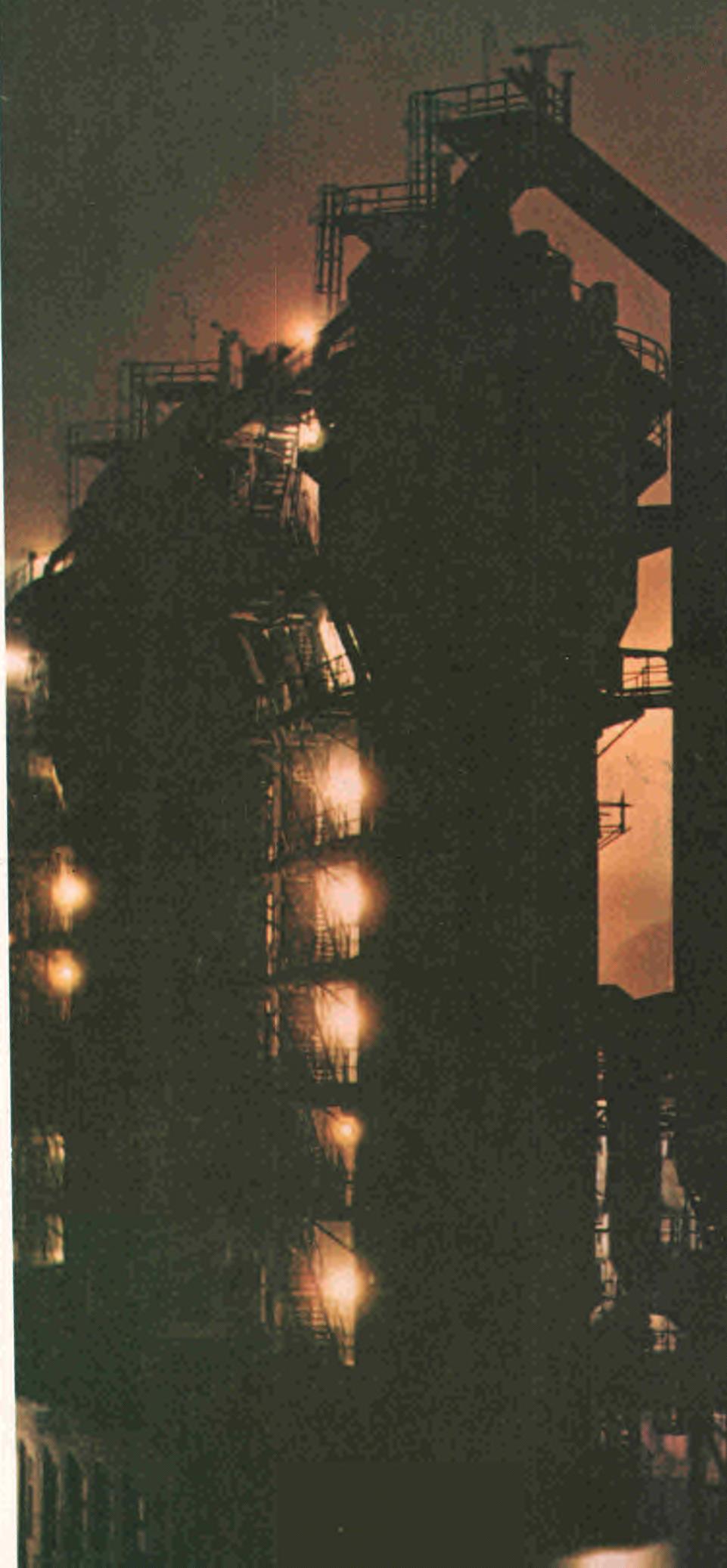
IRON AND STEEL

Steel and iron are basic necessities for heavy industry. In 1718, 27,000 tons of iron ore were mined in the Urals. Peter the Great started iron manufacturing in Moscow, Nizhny Novgorod (now Gorky) and St. Petersburg (now Leningrad). By 1913, Russia had become the world's fourth largest producer of steel. In that year 4.2 million tons of steel and about the same amount of cast iron were manufactured. In 1961 the output of pig iron climbed to 51 million metric tons and the output of ingot steel to 71 million metric tons.

Krivoy Rog in the Ukraine is the most important source of iron ore. At Kursk there is a magnetite deposit of about 200 million tons with a 50 per cent iron content; it occurs at a depth of 1800 feet. Other iron-mining centers are at Lake Onega and on the Kola and Kerch peninsulas. There are deposits in Siberia at Tomsk with 35-40 per cent iron content and on the slopes of the Altay Mountains. In Eastern Siberia iron is supplied by Angara for mills at Irkutsk and by the Amur basin for mills at Komsomolsk.

In 1913, mills in the Ukraine produced 70 per cent of Russian iron and 60 per cent of its steel, but under the Soviets the industry was decentralized. New plants were built at such places as Magnitogorsk and Nizhny Tagil in the Urals, the Kuzbas in Siberia and Komsomolsk on the Amur River in the extreme southeastern part of the Soviet Far East. Georgia and Azerbaydzhan have also become centers of alloy-steel production.

The Soviet Union is a major producer of manganese, almost all of which comes from near Nikopol in the Ukraine and from Chiatura in Transcaucasia. The U.S.S.R. is





also the largest producer of nickel and chromium, which are found in the southern Urals. No significant deposits of tungsten or molybdenum have been discovered.

NONFERROUS METALS

Nonferrous metals are difficult to refine because they occur in complex metallic groupings. Copper and aluminum, for example, require large amounts of electric power.

COPPER

Peter the Great is credited with opening up copper mines in the Urals. Later, copper was also mined in Armenia. Today copper is mined and refined in Kazakhstan and at Almalyk in Uzbekistan—both in Soviet Central Asia. The annual production of copper is small, totaling about 423,000 metric tons in 1958.

LEAD AND ZINC

Lead and zinc frequently occur together. Lead refining started in Russia in 1704 in the Nerchinsk region of Eastern Siberia. Today the most important zinc and lead mining regions are in the northern Caucasus, Kazakhstan, the Urals, the region of Novosibirsk in Siberia and the coastal territory in the Soviet Far East. The Altay Mountains area is becoming a major center of the mining and refining of nonferrous metals.

TIN

The first tin mines were opened at Olovyanaya in the Chita region of the Russian S.F.S.R. Other deposits at Leninogorsk in eastern Kazakhstan were opened up in 1930. However, these deposits are small and the U.S.S.R. must import much of the tin it uses.

ALUMINUM

Aluminum refining requires vast amounts of electricity. The first Soviet aluminum was manufactured in 1933 at the "Volgov" factory near Leningrad. The bauxite, the usual raw material for aluminum, came from Tihvin.

The industrial revolution in the U.S.S.R. began in earnest with the First Five Year Plan (1929-33) and continues today with the recent Seven Year Plan (1959-65). The emphasis throughout has been on heavy rather than light (consumer) industry. Soviet prognosticators, perhaps overly optimistic, have predicted a 500 per cent increase in industrial output in the period 1960-80.

Plants were then built at Kamensk and Chelyabinsk, using the deposits of bauxite in the Urals, at Stalinsk (now Novokuznetsk) in Western Siberia and at Kirovabad in Azerbaijan, the latter utilizing the aluminate of Armenia. At Kandalaksha nepheline from the Kola Peninsula is used to produce aluminum, as is peheline, a by-product of the production of thallium. The production of aluminum rose from 38,000 metric tons in 1937 to 200,000 in 1950 and 450,000 in 1958.

URANIUM AND OTHER MINERALS

Other minerals of importance in the U.S.S.R. include gold, platinum, uranium, thallium, potash, sulfur and phosphates.

A view of the bustling waterfront at Odessa, one of the most important ports on the Black Sea. A city of ancient origins, it was called Odessus by Greek settlers and Hadzhi-Bei by the Turks; it assumed its present name in 1795, three years after being annexed by Russia. The city developed rapidly, being ideally situated for exporting wheat, sugar and timber from the vast Ukrainian hinterland, and for importing oil and coal from the Caucasus and Donbas (Donets Basin) regions.



Most of the gold comes from northeastern Siberia, where it occurs in both vein and alluvial deposits. About 10 million fine ounces are mined annually.

Platinum is mined in the Urals. The principal deposits of uranium in the U.S.S.R. are in Central Asia in the area of Samarkand. Others are at Kara Kagir in Kirghizia, at Agadik in Uzbekistan, in Armenia, on the Kola Peninsula and in Tuva. The major atomic-research centers are at Dubna near Moscow, near Yerevan in Armenia, at Atomograd in Kazakhstan, west of Tobolsk on the slopes of the Urals, and near Lake Baykal.

Thallium is found at Kirovsk on the Kola Peninsula and is used in the chemical industry of Kandalaksha. In

the western Urals there are deposits of potash, and sulfur occurs in the middle Volga area. There are valuable salts in the Caspian Sea area at Kara-Bogaz-Gol, and phosphates at Aktyubinsk in Central Asia.

THE MECHANICAL INDUSTRIES

Since 1928 the mechanical industries have developed rapidly. The major plants produce military equipment, agricultural machinery, railroad equipment and motor vehicles and parts.

The Ukraine and the Russian S.F.S.R. lead in the production of agricultural machinery. In the Ukraine, there are great plants at Kiev, Kharkov, Dnepropetrovsk, Zaporozhe, Krivoy Rog and Odessa. In the Russian S.F.S.R. the centers are Leningrad, Lyubertsy, Lipetsk, Rostov and Vladimir in the west; Saratov and Volgograd on the Volga and Chelyabinsk, Sverdlovsk, Krasnoyarsk, Irkutsk and Minsk in the Urals and Siberia.

AUTOMOTIVE INDUSTRY

The automotive industry in the Soviet Union is not comparable to that of the United States, the United Kingdom, West Germany, France or Italy. However, the production of cars, trucks and buses increased from 800 units in 1928 to 555,000 in 1961. The best-known Soviet cars are the small Volga, the compact Pobeda, the large GAO-12 (ZIM) and the ZIL limousine. Cars are produced at Gorky (the largest factory), Moscow, Yaroslavl, Ulyanovsk, Miasa, Komsomolsk, Khabarovsk, Dnepropetrovsk, Kutaisi and Minsk.

The manufacture of bicycles and motorcycles is important. Moscow and Kharkov are the main centers. About 3 million bicycles and 250,000 motorcycles are produced every year.

RAILROAD EQUIPMENT

Production of railroad equipment has increased in recent years. Only three electric locomotives were manufactured in 1932, but production rose to 102 in 1950, 396 in 1960 and 557 in 1961. The number of Diesel locomotives made increased from five in 1940 to 1455 in 1961. About 40,000 railroad freight cars and 1800 railroad passenger cars are turned out each year.

THE TEXTILE AND CLOTHING INDUSTRIES

There has been an increase in the



Tbilisi (formerly Tiflis), seen here from a funicular, is the capital of the Georgian S.S.R. and one of the most important economic and cultural centers of the Caucasus. The city, for centuries a crossroads for trade between Europe and Asia, is also famed for the hot sulfuric springs from which its name is derived (tbili, meaning hot). Until its recent modernization, Tbilisi was Asiatic in character with numerous mosques and bazaars crowding the narrow streets.

production of textiles and clothing, especially of cotton goods, which are protected against foreign competition by prohibitive import duties. Factories in the old centers of cotton-goods production, such as Moscow, Ivanovo and Leningrad, have been expanded, and new ones have been built along the middle and lower Volga (one of the greatest textile combines of the Soviet Union is at Kamyshin), in Ciscaucasia, in Siberia and in Central Asia, where all the republics have cotton centers. Progress has also been made in the woolen and silk industries.

Production of cotton yarn increased from 568,000 metric tons in 1948 to 1,169,000 tons in 1960. Wool yarn production has almost tripled since 1948, and in 1960 was 221,300 metric tons. Rayon and acetate filament production grew from 5700 metric tons in 1948 to over 106,000 tons in 1960.

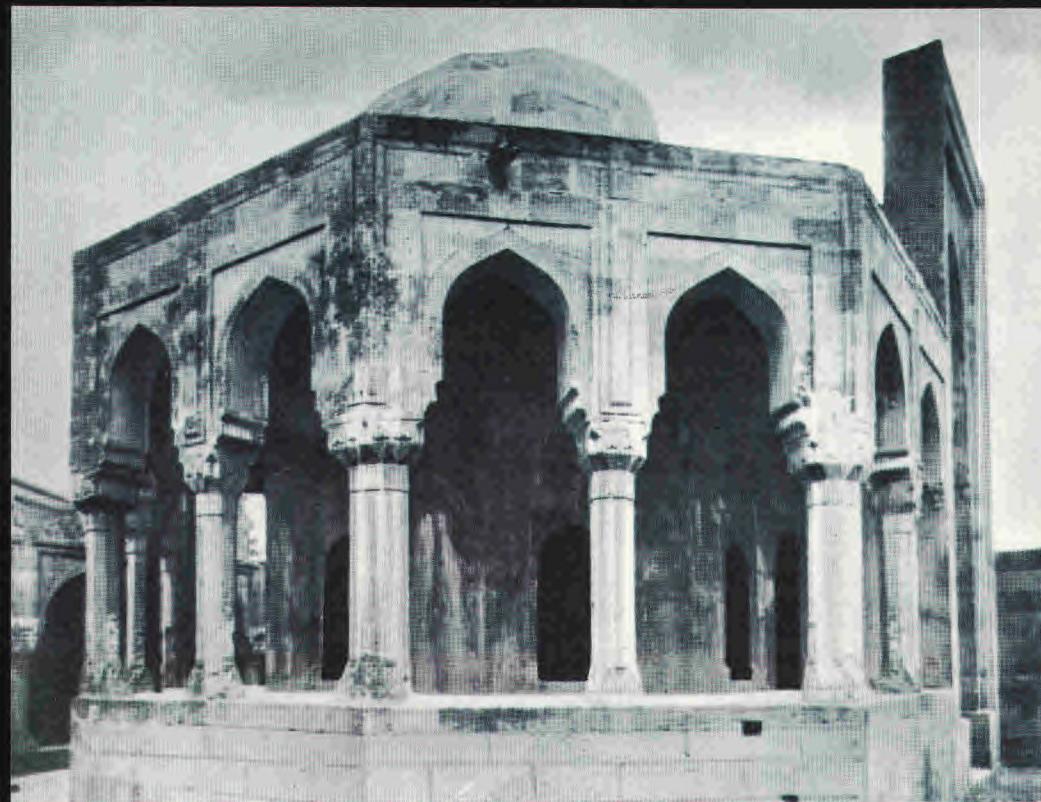
THE CHEMICAL INDUSTRY

The early chemical industry of tsarist Russia was destroyed during the civil war and then rebuilt, only to be destroyed again during World War II. Today it is a flourishing industry, producing everything from acids, fertilizers and dyes to plastics, rubber goods and pharmaceutical products.

The most common raw materials used in the Soviet chemical industry include coal, hydrocarbons, wood pulp and thallium from the Kola Peninsula, phosphates from Central Asia, potassium salts from the Urals, Kazakhstan and Uzbekistan, Glauher's salts from Kara-Bogaz-Gol Gulf on the Caspian Sea and sulfur from Central Asia and the mid-Volga area.

The leading chemical plants are located in Leningrad, Moscow, the Ukraine, the Urals, the Caucasus, Central Asia and the Kuzbas.

Great quantities of chemicals are produced in the Urals where raw materials such as coal, potassium, phosphates, pyrites, sulfur and salt are found. Along the Kara-Bogaz-Gol Gulf there are great sulfuric acid and sulfate plants which obtain their raw materials from the immense salt reserves of the gulf. Plants in Leningrad, Yaroslavl, Voronezh and Yefremov (all in the European part of the Russian S.F.S.R.) manufacture chemicals based on alcohol derived from grain and potatoes. The Sumgait industry near Baku uses petroleum residues.



This medieval palace in Baku dates from the 11th century. Formerly a Persian city, Baku is the site of an ancient fortress and many Moslem mosques. The city remains to this day predominantly Moslem.

The chief plastic products of the U.S.S.R. are galalite, carbolite, bakelite and celluloid. Factories are located near Moscow, Leningrad, Vladimir and Kalinin.

PHARMACEUTICALS AND DYES

The pharmaceutical industry has its main factories in Moscow, Leningrad, Kiev and Kharkov and at Chimkent in Kazakhstan. Dyes are produced in these cities as well as in the textile centers.

Because of its desire to develop agricultural production, the Soviet government has erected a number of fertilizer plants. Production of mineral fertilizers increased from 3 million metric tons in 1940 to 5.5 million in 1950, and to 15 million in 1961. However, recent reverses in the agricultural production of the Soviet Union have caused Khrushchev to call for a vastly increased output of fertilizers.

Communications

Because of its vast territory and climate, the U.S.S.R. has difficult communication problems which are being solved only gradually.

RAILROADS

In 1865 the total length of rail track was 14,400 miles; by the eve of World War I it had increased to 45,000 miles. Under the tsars the Caucasus line to Turkey and Iran, the great Transaralian line uniting Moscow with Tashkent, the Transcaspian, which runs along the border of Iran and Afghanistan, and the longest continuous railroad in the

world, the famous Trans-Siberian, were built. The last line is the one uniting Moscow with Vladivostok. The main line of the Trans-Siberian was completed in 1904. A missing section to the south of Lake Baykal was built in 1911—previously ferries had provided a link across the lake.

After World War I, emphasis was placed on the development of railroads. Existing tracks were reinforced and double tracks were laid. New lines were constructed, such as the one which runs from the central European U.S.S.R. to Vorkuta and then to the mouth of the Ob beyond the Arctic Circle, and the Turkeib railway linking Novosibirsk in Siberia with Alma-Ata in Kazakhstan and Tashkent in Uzbekistan. But during World War II about 40,600 miles of track, 13,000 railroad bridges, 15 per cent of the locomotives and 20 per cent of the freight cars were destroyed.

Among the lines built since World War II is the Southern Trans-Siberian, which crosses northern Kazakhstan from Magnitogorsk, and, at the Kuzbas, branches out into a series of new arteries. A northern line of the Trans-Siberian is partially built. Another line, branching from the Southern Trans-Siberian just east of Lake Baykal passes through Mongolia and leads to Peking, China. A branch line connects the Trans-Siberian with eastern Turkmenistan. As a result of all this construction the Soviet Union had 78,000 miles of railroad in 1961.

However, the network is inadequate for such a large country, especially in certain areas. In addi-

tion, the gauge of the track (5 feet) is different from that of other European countries, necessitating the unloading and reloading of all rail shipments into the country.

More than three fourths of all travelers in the Soviet Union use the railroads, and about four fifths of all freight is transported by rail. Coal constitutes about one third of the total freight traffic.

ROADS

The Soviet Union has poor roads and, for the size of the country, an inferior road network. Winter icing, wind and spring thaws make road building and maintenance difficult. There were 168,000 miles of roads in 1961. Some gas stations and repair shops are now being built to help stimulate use of the roads, but there are only about 3 million motor vehicles in the U.S.S.R., and of these only 400,000 are passenger cars.

AIR TRANSPORT

Because of the size of the country and the inadequacy of the roads, air transport is particularly important to the U.S.S.R. Almost every city with a population of 200,000 people or more has an airport. Aircraft factories have been established in various parts of the Russian S.F.S.R., in the Ukraine, in Georgia and in Central Asia.

WATER TRANSPORT

There are 73,000 miles of navigable waterways in the Soviet Union, but their utilization is limited by the cold climate. The most important artery consists of the Volga and its tributaries. In 1952 the Volga-Don Canal was opened, which connected 18,000 miles of waterways in the Volga Basin with the nearly 8000 miles of the Don and Dnepr basins. It provides direct water communication between the Black Sea and the Caspian Sea, and by way of other rivers connects the three southern seas with the White and Baltic seas in the north.

Plans call for enlarging the network by joining the Caspian to the great rivers of Central Asia and the Aral Sea, and then to the Siberian rivers; this would create a continuous waterway to the Pacific. About 210 million tons of freight were

carried on inland waterways in 1960.

While the Soviet Union has thousands of miles of sea coast, only the Black Sea and part of the Baltic are ice-free the whole year, and icebergs on the open seas present a serious shipping hazard.

An important factor in the development of the Arctic lands has been the use of icebreakers in the north, from Murmansk to the Bering Straits and the Pacific Ocean.

The Soviet merchant fleet consists of more than 110 vessels of 100 tons and over, amounting to over 4 million gross tons. Of the total freightage (15 million tons in 1913, 31 million in 1940 and 76 million in 1960), a large part is carried internally between ports within the U.S.S.R. Ports with the greatest traffic are Odessa on the Black Sea, Leningrad and Riga on the Baltic and Vladivostok on the Sea of Japan. Arctic ports are assuming greater importance. Some ports have specialized traffic, such as wood at Archangel and Igarka, and petroleum at Baku, Astrakhan and Batumi.

The principal shipbuilding centers are Leningrad, Odessa, Nikolayev and Sebastopol in the European U.S.S.R. and Vladivostok, Khabarovsk, Komsomolsk and Irkutsk in the Soviet Far East and Siberia.

COMMERCE

About 65 per cent of internal commerce is controlled by the state and 30 per cent by the cooperatives. Private individuals conduct the remainder. State agencies and cooperatives for marketing merchandise number more than 66,000. There are about 130,000 food stores and restaurants and about 500,000 shops which sell articles other than food. Some 40 per cent of the specialty shops are run by the state. The rest, largely in rural areas, are under consumer cooperatives. Only a few are under individual proprietorship.

FOREIGN TRADE A STATE MONOPOLY

International commerce is a state monopoly. Imports and exports are controlled by a special license given by the Ministry of Foreign Trade according to a plan revised annually by the government. In various foreign countries there are special Soviet trade delegations to arrange the exchange of goods, such as the American-Russian Trade Corporation (Amtorg) in the United States.

Soviet foreign trade, in terms both of value and amount, is small. The value of Soviet foreign trade in 1961 was 10.6 billion new rubles, or, at

the official rate of exchange, U.S. \$9.6 billion. This is very little more than that of small industrial European states such as Belgium and Holland. (United States foreign trade in the same year amounted to about \$35 billion.)

EXPORTS AND IMPORTS

In 1913, 42.8 per cent of Russian exports consisted of fuel and raw materials, 33.3 per cent of grain, 23.6 per cent of consumer goods and 0.3 per cent of machines and equipment. In 1960, fuel and raw materials, including grain, accounted for 39.9 per cent of Soviet exports, consumer goods for 6.8 per cent and machinery and equipment 20.5 per cent.

Raw materials have always been first among Soviet imports, and machinery has been in second place. However, raw material imports have declined, while the importation of machines has increased. On the other hand, the percentage of imports representing consumer goods has remained comparatively steady. In 1960, fuel and raw materials accounted for 30.4 per cent of Soviet imports, machinery and equipment for 29.8 per cent and consumer goods for 23.6 per cent.

In 1913, 97 per cent of Russian foreign trade was with Western powers. Political and military changes have since shattered this pattern. In 1961, only 25 per cent of Soviet trade was with non-Communist countries; of this, 66 per cent was

with western Europe. The most important of the Communist-bloc nations to Soviet foreign trade were the German Democratic Republic (East Germany) and China. In 1960 trade with China was about \$1.3 billion; however, in 1963 political tensions between the Soviet government and China resulted in drastic reductions in trade.

TOURISM

In recent years tourism in the U.S.S.R. has been developing. Several commercial airlines now regularly service Moscow. The Soviet government has made it easier to obtain visas in order to attract more visitors from non-Communist nations.

In 1956, 486,374 travelers from 84 countries visited the Soviet Union. In the same year 561,423 U.S.S.R. citizens visited 61 countries outside the Soviet Union, but the vast majority of these Soviet travelers only visited Communist-bloc states. These figures increased gradually, and in 1959, 585,029 tourists from 90 different countries went to the U.S.S.R. However, from 1959 to 1962 there was a significant increase in international travel. In that year 909,604 visitors from 134 nations came to the U.S.S.R. and 807,474 Soviet citizens traveled to 98 countries.

Although much of this increased tourism is the result of official cultural and commercial missions, the lessening of restrictions by the Soviet government has induced many bona fide tourists to visit the country.

Livadia Palace at Yalta, in which Roosevelt, Stalin and Churchill held their historic conference in February 1945. At one time a summer residence of Tsar Nicholas II, the palace has been converted into a vacation sanatorium for workers with respiratory ailments.





Elderly Moscow women emerging from the monastery of Novodevichy, which has been converted into a museum, exemplify the humble yet stubborn religious spirit that still persists throughout the land once called "Holy Russia."

FROM THE SAMOVAR TO THE SPUTNIK, it took but fifty years. The Russian peasant of 1905 is the Soviet citizen of the 1960s. But what sort of man is this citizen? In what ways is he different from his grandfather?

Wherever you look into the Russian character, you see paradox. It has been said that no one understands the Russians: people merely have varying degrees of ignorance concerning them. We shall be examining the life of the people of the Soviet Union—from cosmopolitan Moscow of the arts and theater to the rural life and folklore; from tsarist days to “collective living” under Khrushchev. We shall discuss marriage customs, family life, education and sports—all in an effort to pull together the immense magnitude and diversity of the Soviet scene.

We shall then examine the Russian national characteristics as they are revealed in their history and literature. We shall look at Russians through their own eyes and with our Western eyes, using as points of departure such modern sciences as psychology and sociology. Our aim is to probe how the Russian thinks. For his character, so rich in achievements and potentialities, is to us equally rich in dangers and contradictions.

Dostoyevsky called his motherland “Sublime Russia—a universal, ordered chaos.” If there is any constant within this contradiction and confusion, it is the element of change itself.

If, finally, at the end of our journey through the U.S.S.R., we gain some understanding of the warmth and reticence, the good humor and slyness, the energy and wastefulness, of a great people so like and so unlike Western counterparts, shall we then know the Russian people? For, as the poet says, “Not with the mind

is Russia comprehended,
The common yardstick
will deceive
In gauging her:
so singular her nature—
In Russia
you must just believe.”
Fyodor Tyutchev,
“Not with the Mind”, 1886.

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MOSCOW

NO ONE ASPECT OF THE RUSSIAN scene is fully representative of the whole. But certainly no single aspect represents a greater part of the whole than the city of Moscow, the capital of the U.S.S.R. It was once called "the City of Forty-times-Forty Churches." Today it might be renamed "the City of Forty-times-Forty Enigmas."

TRAVELING TO MOSCOW

The traveler who wants a gradual transition from the world of the West to the world of the Soviet Union—and a good opportunity to see the

European approaches to Moscow as well—will board an old-fashioned international train in Vienna bound for Warsaw and the East.

As soon as he boards this train, he is taken to his place in the *spalnya*, the Soviet sleeping car. Though it is very comfortable, the Soviet car is quite old-fashioned, its design having been inherited from tsarist days. It is also considerably wider than its European counterpart. The larger compartment permits two beds to be placed alongside each other, instead of one atop the other as in Western European cars. The train is composed entirely of sleeping cars, as

are all Soviet long-distance trains. A steward or stewardess in each sleeping car keeps passengers generously supplied with an assortment of sandwiches, and with hot water for glasses of tea poured from a traditional Russian samovar at the end of the corridor.

The berths are of two types: *myagkie* (soft), which are more expensive because they are more comfortable and are listed as first class; and *tverdye* (hard), which are less expensive because they are less comfortable, falling in the category of second or third class. The Soviet Union has not eliminated the

A wintry, snow-swept day in Moscow is a familiar affair for pedestrians on Gorky Street who have bundled up in warm coats and woolen hats for protection from the cold.



division into classes for services and some other aspects of Soviet life. Local trains with ordinary coaches are also divided into different classes, the more comfortable being higher-priced, and the less comfortable lower-priced.

When the international train reaches Warsaw, the Soviet car is detached and coupled to a Polish train bound for the Polish-Soviet border. When the car reaches the border at Brest Litovsk, on the Soviet side, it is raised from its chassis and wheels by a crane and gently transferred to another chassis with different wheels which fit the larger Soviet railway gauge. Ever since the first railroad was built in 1837, the tracks of Russian railways have been of a different gauge from those of their neighbors (5 feet between rails, as compared to 4 feet 8½ inches in the U.S. and most of Europe). This made it more difficult for an enemy to invade the country. A hostile European power could not run its military trains right into Russia; the difference in gauges would bring the wheels of its cars grinding to a halt at the border.

At Brest Litovsk the traveler advances his watch two hours to match European Russian time. As soon as his car is secured to the new chassis, he can re-enter for the last leg of his trip to Moscow. An abundance of tasty Russian dishes and the very best Soviet vodka provide a welcome diversion should the vast flatlands become a bit monotonous.

ARRIVING IN MOSCOW

At last the train pulls into Moscow's Belorussian Station, which receives trains from the West (there are also eight other stations, each handling trains to and from different regions). The traveler will be disappointed if he had hoped to see a *troika* or any horse-drawn vehicle; unfortunately, these are now found, with few exceptions, only in the books of Tolstoy and other writers. Instead, he will find a line of taxicabs, as at railway stations in the West.

Here again, there is a price distinction for the different kinds of cabs available. The fare is less for a ride in the Moskvich, a Soviet copy of the small German Opel. The fare is higher for a ride in the bigger and more luxurious GAO-12 (formerly called the ZIM), which was designed by a Soviet engineer after

he had carefully studied the American Cadillac in Detroit.

The Kremlin

As soon as he can, nearly every traveler heads for the Kremlin—the heart of Moscow and a magnet for visitors from all over the world. It was here that Moscow was born in 1156, when Prince Dolgoruki built his villa and his fortress on a hill strategically situated on the Moskva River. And it is over this central point that the tide of Russian history has swept for eight centuries.

From the foot of the Kremlin hill, a broad old-fashioned cobblestone street, which slopes upward so gently that the incline is hardly noticeable to the eye or the foot, leads into Red Square (which is roughly oblong in shape and was named "Red" long before the Revolution of 1917). The combined impact of architecture and historical significance in this part of Moscow is extraordinary.

RED SQUARE

Along one side of Red Square, more than one half mile long, runs a high red-brick crenelated wall. Past the end of the square, the wall continues on, turns off sharply, then later turns back sharply again. If you were to follow alongside this wall, you would find yourself right back in Red Square, having completed a triangle. Inside this triangle lies the Kremlin, where the rulers of Russia live and work today as they have for centuries.

Originally a fortress, the Kremlin is a self-contained settlement, filled with churches, palaces and government buildings. Since the death of Stalin, it has been reopened to the public.

Today it still resembles a fortress. The churches, with their sparkling gold domes, and the palaces, with their luxurious chambers, have been restored—but for other than their original purposes. The churches are now museums, since religious worship is discouraged by the atheistic Communist government. The palaces of the tsars, together with other buildings, are used for state functions. In the Great Kremlin Palace, built of white stone, where Ivan the Terrible once celebrated his conquests, national and international

Communist congresses are now held.

Alongside these beautiful, ancient buildings stand some modern, far less attractive structures built by the Soviet government. One houses the Supreme Soviet (the Russian Parliament or National Congress); others are office and apartment buildings for the top officials of the Soviet government and their employees. The late Soviet ruler, Josef Stalin, had an apartment within the Kremlin site, but its location was a secret known to very few.

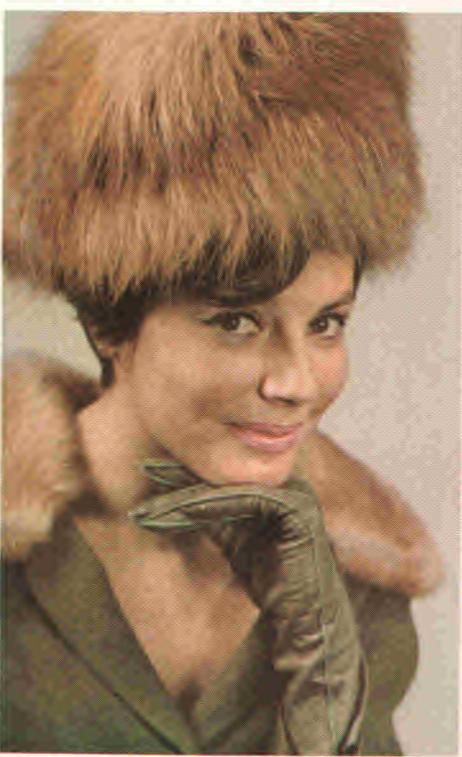
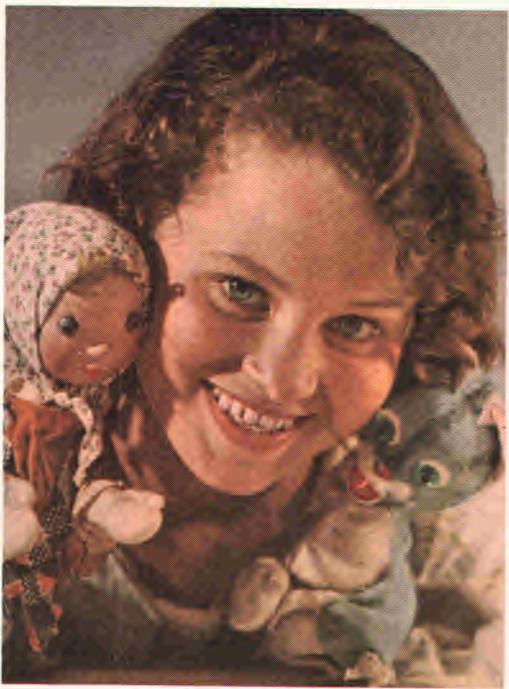
During the day, when the sun strikes the golden cupolas of the cathedrals and palaces, the Kremlin is a dazzling sight. It is entirely different but no less dramatic at night, when huge, illuminated red stars pierce the dark sky. These red stars have replaced the imperial eagles of the tsar atop the medieval brick towers of the Kremlin wall. Visitors are sometimes puzzled when these lofty red stars seem to revolve on windy nights; this is no optical illusion, however. The stars actually do revolve, since they perform double duty as weather vanes—a rather amusing example of the much-vaunted Soviet "efficiency."

Architecturally the Kremlin reflects its role as the heart of both Moscow and Russia. Its buildings exemplify three of the nation's major characteristics—the old Russian, the Oriental and the Soviet.

LENIN'S TOMB

Just outside the wall and roughly at the half-way mark, facing Red Square, stands a severe block of red granite which from afar looks like a square pillbox. This is the Lenin mausoleum. Revered by the Communists as others might honor a "saint," Lenin lies in state inside the tomb. Each day long lines of men, women and children file through the tomb to catch a glimpse of Lenin's embalmed corpse, with its waxlike face and neatly trimmed, pointed beard. Occasionally one sees an elderly person lower his head and quickly, almost furtively, cross himself before the glass casket. On important state occasions, the leaders of the Soviet Union stand atop the flat roof of the tomb while reviewing parades through Red Square.

The Feminine Side of the U.S.S.R.: Left, top to bottom: a young actress, Soviet Far East; an airline hostess, Tadzhik S.S.R.; a waitress, Kiev. Center, top to bottom: a housewife, Moscow; a fashion model, Moscow; a peasant woman, Azerbaijan S.S.R. Right, top to bottom: a sea captain, Vladivostok; a collective-farm worker, Ukraine; a ceramics artist, northern Caucasus.





This subway station in Leningrad rivals those of Moscow in its marble decoration and bas-reliefs. Three men and a boy—visitors to the one-time capital—admire the station before boarding their train.

Russian readers flip through the pages of magazines and books at a stand in the Gorky Park of Culture and Rest in Moscow. The Soviet people are voracious readers. Although reading matter is still restricted by the Ministry of Culture, the variety of available publications has increased greatly in recent years. One of the most sought-after magazines, Amerika, is published as part of a cultural exchange program between the United States and the Soviet Union; its counterpart in the United States is USSR, a pictorial monthly. Both magazines emphasize the brighter aspects of their respective cultures.



Directly opposite, along the other side of the square, is an old department store building of tsarist days, now converted into the Soviet state's biggest department store, called GUM. Here are to be found most of the consumer goods produced in the Soviet Union, as well as commodities imported from abroad, mostly from East European Communist states.

SAINT BASIL'S CATHEDRAL

Dominating one end of the square is an extraordinary structure—St. Basil's Cathedral, with its numerous multicolored, twisted, onion-shaped domes. According to legend, Ivan the Terrible put out the architect's eyes so that he would never be able to design another such cathedral, leaving St. Basil's the only cathedral of its kind in the world.

The other end of the square is taken up by the State historical museum, a heavy, uninviting red-brick building constructed during the latter part of the 19th century. Though it houses historical documents and manuscripts, it is best known today as the entry point into Red Square for tanks, troops and thousands of workers in the annual parades.

From the tower of St. Basil's or a top floor in one of the higher Kremlin buildings, there is an impressive view of Moscow. This city of more than five million people stretches for miles in all directions. The center, around the Kremlin, is now the core of a modern city, with massive office buildings, apartment houses and even skyscraper hotels.

Until recently the sections of the city surrounding this modern core were characterized by seemingly endless tracts of old-fashioned wooden houses and huts—which gave Moscow something of the air of an overgrown village. However, the massive building program that began after World War II and continues into the 1960s has replaced the vast majority of these sorry wooden dwellings with large, though visually unimaginative, structures of concrete or stone.

Although these buildings are new, there is little "modern" about them. The emphasis in recent Western architecture on concrete-and-glass buildings has never caught on in Russia. The most modern-looking building in Moscow is probably the

Lenin Library, which was completed in 1934; and even it seems architecturally backward when compared to modern buildings in the West.

Moscow's "skyscrapers"—there are seven of them, and they look almost exactly alike—are modeled after the Spassky Tower, a structure in the Kremlin designed in the 15th century by a Florentine architect. This was supposedly Stalin's idea of what a building should look like.

One of the more positive aspects of Moscow's appearance is its cleanliness—a cleanliness maintained by the very latest in street-cleaning machines on the one hand and by very old-fashioned sturdy Russian women with twig brooms on the other.

Outside the Kremlin

Many of the best of the old hotels of tsarist days are still in use. The Metropole, built in 1898 near the Bolshoi Theater, housed all foreign visitors and correspondents until recently, when they were offered the alternative of an apartment in one of the newly constructed buildings. The National, with a magnificent view of the Kremlin and Red Square, was the obligatory site of many foreign embassies until they too were offered space in new apartment or office buildings. It was also in the National, which adjoins the former site of the United States Embassy, that the Soviet government accommodated distinguished American and other foreign visitors.

NEW BUILDINGS

These old hotels are now being rapidly outmoded by big new buildings. The Moskva, the first of the major Soviet hotels, rises to some twenty stories in the center of the city. At night, especially in summer, one can dance and dine on the roof, which affords a dramatic view of the Kremlin and of Gorky Street, Moscow's Fifth Avenue. The Moskva, with its five hundred rooms, housed the hundreds of delegates and correspondents of the United States, Britain and France who attended the conference of the Big Four Council of Foreign Ministers held in Moscow in 1947.

It has since been complemented by still larger hotels, the Leningradskaya and the Ukraina, with more than one thousand rooms each. The Ukraina has 36 floors and a spired tower. It is used for staging big conventions and housing diplomats

while they await permanent quarters. Smaller, but also new, are the Budapest and the ten-floor Junus (Youth Hotel), which has something of a Western European atmosphere. Foreigners dubbed it the "Moscovsky Hilton" because of its brass rail and high bar stools, patterned after the West. The décor of the dining rooms is also reminiscent of first-class Western hotels. It is a favorite with students and young sportsmen.

On the Lenin Hills, on the outskirts of the city, stands the new Moscow University, with its central building of skyscraper proportions. The architecture of the university, like that of the hotels and the other new construction, seems heavy and unimaginative by Western standards. Yet the Russians delight in seeing one high building towering over another. It gives them the sensation that they are catching up with New York—and New York, though the Russians are reluctant to admit it, is a city they wish to surpass.

Lower, but far more attractive, are some of the old classical buildings which survive from tsarist days. These include the Bolshoi Theater, where some of the finest ballet and opera in the world can be seen and heard; the nearby House of Columns, now a trade union building; many theaters; and numerous mansions which formerly belonged to Russian noblemen and wealthy merchants, now converted into Soviet government buildings or foreign embassies.

MOSCOW'S PALATIAL SUBWAYS

Out of sight below the ground is one of the most impressive architectural achievements of the Soviet state—the Moscow subway. It is impressive not because of the extent of the lines or the frequency of the train service, but rather because of the great wealth and effort which have been invested in decorating the main underground stations. With walls and huge pillars of glistening marble, they are like underground palaces. All around are monumental pieces of sculpture, paying tribute to workers, peasants and the Bolshevik Revolution, and serving as settings for these sculptured figures are elab-

Young theater-lovers buy tickets at a booth in Dyushambe (formerly Stalinabad). The theater is popular throughout the Soviet Union. Cities large and small have their own theaters. Even collective farms, factories, military training colleges and other institutions maintain amateur dramatic companies.

orate paintings. These paintings are actually advertising posters, not for consumer goods as in Western subways, but for the Soviet state; the red star, hammer and sickle are recurrent "trade-marks."

THE RUSH HOUR IN MOSCOW

As in New York, London, Paris, Tokyo and other metropolises, the Moscow subway has become a key factor in transporting millions of people from home to work and back again. And in the subway rush hour, the Muscovite is no different from his counterparts in other great cities. Jam-packed into a subway car he looks (and probably



feels) like an intelligent sardine. Pushed and shoved from all sides, he expresses his resentment as eloquently as any New Yorker. Stirred by the sight of a lady who is standing, he turns his attention to his reading matter as resolutely as any average "bourgeois" subway rider.

The subway lines lead to and from the main centers of Moscow life. They will take you to the shopping, theater and restaurant districts, and to the spacious parks in outlying areas, of which the Russians are justly proud.

SHOPPING IN MOSCOW

During the day the center of Moscow, with its broad avenues leading to and from the Kremlin, is a beehive of activity. Shopping streets such as Gorky and Arbat are filled with men, women and children looking for something new and good

which they can afford. Reasonably priced quality food or clothes coming onto the market invariably precipitate a rush to get to them. The goods are usually exhausted within a few hours, long before the line of shoppers has run its course, and disappointment is evident on the faces of those who have waited on line in vain. The same is true at the bookstores when a new volume is put on sale. The line forms early in the morning, before the bookshop is opened. The hunger for a new, interesting book, of national or foreign authorship, is so great that the supply disappears as though devoured by a plague of locusts.

Since the war and especially since the death of Stalin, the supply of consumer goods has improved, partly due to shipments received from East European Communist countries, notably Czechoslovakia. The quality

and quantity fall far short of demand, however, with the result that there is still a thriving black market in Moscow for everything from theater tickets to a new book or pair of shoes. The so-called free market, where peasants are permitted to sell the produce from their private plots adjoining their collective farms, also continues to do a thriving business.

The shop windows would probably appear, like most of the Muscovites themselves, rather shoddy to Western eyes. This is partly because the Soviet government, before, during and since World War II, has concentrated a disproportionate part of its resources on heavy industry and armaments, leaving the barest minimum for consumer goods. The Communist Party theory is that once heavy industry is well established, light industry producing goods for consumers will naturally follow. Meanwhile, the consumer must wait and sacrifice himself for what the state considers to be the greater good of the nation as a whole.

Yet, given enough rubles, life can be quite comfortable in Moscow, or in any of the other big cities of the Soviet Union. The major department stores offer a wide assortment of goods, including highly coveted electrical appliances which have recently begun to come onto the market—washing machines, refrigerators, television sets and phonographs. Even automobiles are becoming more readily available. Well-stocked grocery and specialty shops offer a modest variety of meats and numerous delicacies—black caviar, vodka and even domestic champagne. Confectionery shops along the Arbat and other streets are stocked with chocolates and fancy cookies packaged in elaborate boxes, often decorated with an embossed tower of the Kremlin, topped by a red star.

Off the main thoroughfares, along a number of rather shabby, run-down streets, are the districts of the second-hand shops. Here may be found genuine treasures of antique jewelry, icons, old Russian furniture and china. These have been hoarded over the years by the uprooted and impoverished upper class of the tsarist times; unable to hold out any longer, they have been forced to sell these few remaining belongings.

Unfortunately, very few Muscovites have enough money to buy expensive items, whether of current Soviet manufacture or of the past. The majority must limit themselves

A sunny day brings out afternoon strollers in a pleasant section of Moscow. A characteristic tower of the Kremlin stands opposite a bridge which leads to the modern sections of the capital.





In front of the Kremlin on Moscow's Red Square a crowd patiently waits to enter the mausoleum where Lenin's preserved body is kept on view in a glass casket. The multicolored domes of St. Basil's Cathedral, now a museum, tower in the distance.

to a modest wardrobe, which for women and children is usually made at home, and a modest diet, which relies heavily on bread, potatoes, cabbage and a little meat, generally sausage.

THE 'CLASSLESS SOCIETY'S CLASSES

There is further evidence that the Moscow population is not of uniform composition, that it is divided into classes, a fact of which our traveler had the first hint on boarding the Soviet train at Vienna. Three distinct economic and social classes can readily be distinguished in Moscow (and in the rest of the Soviet Union). At the bottom (in the "third" class) are the unskilled factory workers and those performing menial tasks, such as dishwashers, waiters and cleaning women (their counterparts in the country are the peasants). Next (in the middle or "second" class) come the white collar workers in banks and government offices, teachers and semiskilled factory workers. Finally there is the elite, the upper (or "first") class, composed of the higher echelons of the government and the

Communist Party (in or around the Kremlin); top executives of the government-controlled labor unions; industrial engineers and highly skilled workers; high-ranking officers of the armed forces; and prominent writers and artists of theater, cinema, ballet and music.

These members of the population usually earn sufficient money to be able to buy a car, generous quantities of black caviar and vodka, the most expensive electrical appliances and the various other goods which carry high price tags. They are also fortunate in having less of a housing problem. Many Moscow families must live in a single room, sharing a communal kitchen with others, while a member of the upper class may be able to secure an entire apartment of several rooms for himself.

Members of the upper class also comprise most of the clientele of the relatively few night clubs and luxury restaurants in Moscow. In this

respect Moscow is very much the same as other great capitals of the world where the high-priced entertainments and luxury restaurants are patronized mainly by the few who can afford them. It is not unusual, however, to see workers and even peasants newly arrived from the country spending a great number of rubles for a single big night at the most expensive restaurant in Moscow.

One of the leading restaurants is the *Aragvi*, which specializes in Georgian food. High-ranking Soviet military officers and government officials frequently entertain members of their families or guests from the Soviet Union or foreign countries in this establishment. The feature entertainment at the *Aragvi* is a sword dancer who whirls at incredible speed with the lethal weapon pointed at his own body. The *Baku* offers food from Azerbaijan and the *Kiev* is noted for its Ukrainian dishes. Another famous restaurant is the Armenian *Ararat* in Neglinnaya



An old woman prays in one of Moscow's Orthodox churches. A white, nun-like headdress frames her face. The recent easing of religious oppression by the Soviet regime has allowed people of the Orthodox and other faiths to enjoy greater freedom of worship. But in Moscow, for example, there are still only about 50 churches and chapels, as compared to some 450 in pre-revolutionary days when the city's population was less than a third of what it is today.

fraternizing with foreigners—even during the Stalin period, when it was extremely dangerous to do so.

How the Muscovite Relaxes

THE MOSCOW PARKS

Moscow has many parks, as do all the other big cities of the Soviet Union. The facilities include swimming pools, tennis courts, open air auditoriums and cinemas, concerts, lectures, cafes and restaurants. Though the entertainment is often on the stodgy side, these "parks of culture and rest," with their somewhat supervised atmosphere, are favorite places for relaxation. The famous Gorky Park, where large national and international exhibitions have been held, is particularly popular. In winter, Muscovites skate and ski in this park, and in summer they flock to its artificial sand beach along the Moskva River, especially when the heat reaches the nineties.

Summer and spring come as a wonderful reawakening to the Muscovite, who for long months has been wrapped up in his thick clothes and buried in snow. Men, women and children pour into the many parks that surround most Russian cities to bask in the sun. They lie on the grass, sometimes in their undershirts or other states of undress. Shortly after the war it was quite common to see respectable matrons sunning themselves in their brassieres.

The crowds do differ in some ways from those in other great parks of the world, such as Central Park in New York, Hyde Park in London or the Bois de Boulogne in Paris. Many couples can be seen, but they seldom engage in the abandoned "necking" common in the West. The standard of behavior is more restrained, of the sort most travelers describe as Victorian. Yet the Russian, like the Scandinavians, sees nothing particularly provocative about the nude body. While a couple kissing in a crowd would arouse intense public disapproval, someone strolling peacefully about practically

Street. The *Uzbekistan* is another Central Asian restaurant. The *Peking* is the outstanding Chinese restaurant.

Leading hotels, such as the *Metropole*, the *Moskva* and the *Savoy*, specialize in serving Russian delicacies, not the least of which are caviar and vodka, accompanied by western jazz or "pop" music, or sentimental songs played by balalaikas

and string ensembles.

Once they have worked themselves into a convivial mood, Russians of all kinds and all classes lose their inhibitions and reveal some of their most attractive characteristics—extreme warm-heartedness and cordiality. This natural hospitality has sometimes led them to run the risk of difficulties with the police by

naked draws no attention. Soviet bikinis are among the boldest in the world and the Soviet government, so inclined to rule about such matters of public morality as whether or not Soviet youth should indulge in "decadent" Western dances, is not the least bit shocked by bathing beauties who would cause a commotion on North American beaches.

PARKS, OUTINGS, CLUBS

The "parks of culture and rest" are generally surrounded by tall fences, somewhat like our botanical gardens in the United States. Here and there an ornate bulletin board displays the names of workers who have distinguished themselves in various fields of industrial effort, or the portraits of current Soviet leaders. Other boards carry the daily papers opened to the issues of the day. The statuary decorating the many avenues and fountains seems old-fashioned and conventional for Western tastes. The gardens in these large parks are lovingly tended; the Russians find in them a needed outlet for their artistic expression and showmanship. Rare flowers and plants are displayed in formal beds, sometimes of intricate design.

THE 'DACHA'

In contrast, lilacs and peonies grow unencumbered in the rustic gardens around the *dachas* in the countryside, and nobody bothers to mow the lawn. A *dacha* is a Russian summer villa made famous in the writings of Chekhov and others. It sometimes looks like the house where Little Red Riding Hood's grandmother might have lived. In the past, it was the summer house of the upper class. Today it is a favorite retreat of the high officials, artists and writers of the new Soviet aristocracy. It has, however, become common to call any little shack in the country a *dacha*. Some of these "poor man's" *dachas* consist of little more than a few boards nailed together around a light bulb.

Lesser mortals, who cannot afford a true *dacha*, often manage to rent a room here and there from people who live in the country all year. Those who are lucky enough to have friends or relatives living outside Moscow spend the day or the weekend with them in the lovely wooded countryside.

Other diversions during the summertime are boat rides along the Moscow-Volga Canal, leaving from

what is called Moscow's Port. Boats leave every few minutes on a trip which starts near the Kremlin and goes past Lenin Stadium. There are small eating-places along the river and three or four boat restaurants which are open evenings. They offer excellent food and compare favorably with the West.

DINING AND DANCING

In general, though, public eating places are below Western standards. There are very few snack bars. Foreigners don't like to go to a *stolovaya* (snack bar), considering it too utilitarian and uninviting. The Russian "restaurants" are actually in a luxury category; they often combine restaurant and night club, and are generally located in the best hotels. In a recent trial, a convicted Soviet spy explained what had led him to betray his country: "I loved women and comfort and I frequented *ristorans*."

Restaurants have orchestras and the patrons usually dance between courses. Ninety-five per cent of the music played is American jazz of the Twenties and Thirties or old favorites. Very little genuinely Russian music is played. Russian compositions often have a tango-like rhythm which has little resemblance to the Argentine tango; Russians have turned it into something quite their own. Americans claim that jazz has suffered a similar fate, but the American influence is unmistakable. Russians are at a loss to explain this preference for jazz to an outsider.

Russians love to dance, and the crowds in the fashionable restaurants are giving up conventional formal dancing and are beginning to "swing," holding the partner with only one hand and at a distance. All "night-life" now stops at 11:30 P.M.

THE CLUBS

The Soviet government has established a network of clubs in cities and in the countryside which serve an organized social, cultural, educational and political function. The enormous social significance of these clubs derives almost directly from the scarcity of space at home.

The club may consist of a modest room in a village, not unlike a rural public library, or it may be a "palace of culture" in Moscow or one of the other big cities. Whether in a single room or in a "palace," however, the basic function of the

Soviet Club is to cultivate among Soviet youth an acceptance of and enthusiasm for the Soviet system through the reading of selected publications, and through social activities, sports and entertainment.

Impressive "palaces of culture" can be found in Moscow, Leningrad, Kiev, Baku, Kharkov and Tashkent. They are usually large, ornate buildings, with lecture halls, libraries and cinemas. Members organize various special activities: scientific, artistic,

Holding a bouquet, a Russian woman stands on the porch of Moscow's Church of the Old Believers. The Old Believers, or Staroveri, separated from the Orthodox Church in the 17th century, when certain innovations were made in the Orthodox liturgy. They remain a separate sect to this day, despite several attempts by the Orthodox hierarchy to win them back.



photographic, literary and theatrical. The prominent place occupied in every Soviet club by chess, a Soviet national sport, has played an important part in cultivating Soviet skills in the game and in producing some of the world's leading chess players.

The Young Pioneers are the nearest Soviet counterpart to the Boy and Girl Scout movement in other countries. They too have "palaces of culture," called Pioneer Palaces. Hundreds of these institutions have been established by the Soviet government in different parts of the country. Particularly noteworthy is the Pioneer Palace at Leningrad, with 300 rooms, various kinds of laboratories and an art department which caters to 5000 children.

The Theater in Moscow

Moscow is the center of Russian theater as it is of all the cultural life of the country. It is in Moscow where the principal playwrights are active and where the largest number of theaters—about 30—are maintained, setting the tone for the rest of the country. Soviet theaters, unlike most of those in New York, are exclusively *repertory* theaters. When a Muscovite speaks of a theater, he is referring not only to a building with a stage and auditorium, but also to the acting company that is associated with it.

The Russians have cultivated a love of drama from early days. Weddings were once preceded and followed by regular "plays," in which the bride and groom, friends and parents were assigned roles. The bride played various scenes, such as regretting the approaching loss of her maidenhood. Girls wore their hair in one long braid which their friends divided in two at the time of marriage. This was turned into a very dramatic symbolic playlet accompanied by songs and lamentations. The groom's friends had the role of bodyguards protecting the couple against evil spirits. They, too, engaged in symbolic scenes, often supported by professionals. Deaths, funerals and wakes were accompanied by other forms of dramatic ritual. The old rites of spring, which inspired Stravinsky to compose his famous suite, and the services of the Russian Orthodox Church were conducted in a manner that encouraged and developed the theatrical instincts of the people.

It is therefore not surprising that the theater should have had a very

important place in Russian life. Both large and small cities have their own theater with its own permanent company which tours other cities during the off-season.

Muscovites approach theater-going with glowing anticipation. Tickets can be bought in various offices in town. The management reserves some tickets for visitors, diplomats and special groups. As in New York, tickets for hits, or for performances by great stars, are difficult to get.

One of the outstanding Moscow theaters is the Maly (Little Theater); it was established in 1824 and was the originator of the realistic Russian drama. It staged the works of Gogol, Ostrovsky and Turgenev, who wrote them in collaboration with the Maly's producers and actors. It still keeps these plays in its repertoire, and lovers of the theater look forward to its dazzling, polished productions.

THE 'ARTS THEATER'

Another famous theater, which has had far-reaching influence on the world drama, is the Arts Theater. It was founded in 1898 by Stanislavsky and Nemirovitch-Dantchenko. Stanislavsky, a gifted actor and director, revolutionized the theater by calling on the actor to identify himself with and actually live the role he was playing. This was a very bold departure from the traditional practice of the 19th century, in which the actor generally overplayed and recited his part. When we speak of "Method actors" or of "the Method" we are referring to an American interpretation of Stanislavsky's theories, though there is a decided difference between "the Method" as it is understood in Moscow and as it is practiced by certain schools of acting in New York. The Arts Theater achieved great glory with its productions of Chekhov's plays. Today it continues to work somewhat along the lines of its illustrious past. Many critics, however, claim it lacks the vigor and spontaneity once associated with its name, and that Stanislavsky, were he alive today, would be appalled at the "academic" quality of the plays now being produced.

There are many other highly respected theaters, including the Children's Theater and the world-famous Puppet Theater. Obratsov, director of the latter, has fused Russian humor and fancy into an unforgettable whole.

BALLET AND THE BOLSHOI

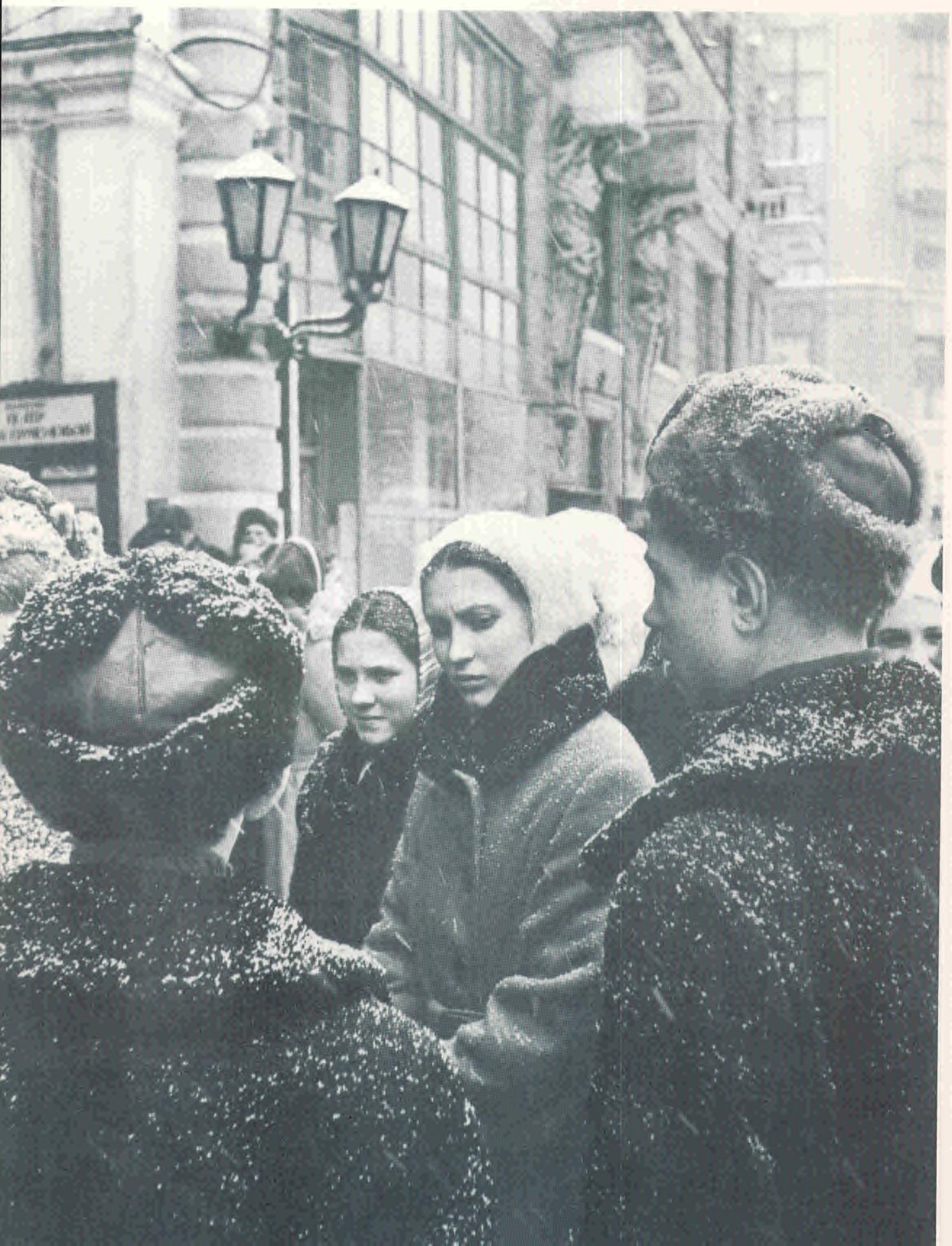
In addition to the theater, Moscow boasts of some of the best opera and ballet productions to be found anywhere in the world. Long before Diaghilev won the world's delighted applause at the beginning of the century with his "Ballets Russes," ballet had become firmly entrenched in Russia and the classical schools of Moscow and St. Petersburg (now Leningrad) competed with each other for pre-eminence. Both companies have been to the United States in recent years. The Leningrad company, called the Kirov, is rated as the most polished and refined ballet company in the world.

The Bolshoi Theater, which is credited with being more energetic and theatrical, is today the moving force of ballet and opera in the Soviet Union. It also operates a school which trains dancers and singers from a very early age. Children selected from dancing schools in different parts of the country are taken into the Bolshoi Theater as though into a monastic order; they cut themselves off from normal life and dedicate themselves entirely to the development of their art. Among the internationally famous prima ballerinas who have danced at the Bolshoi are Ulanova, one of the most extraordinary dancers of modern times, and Plisetskaya, who scored an outstanding success during a tour of the United States.

The Bolshoi was established in 1776 and rebuilt in 1856. Its productions since the Revolution have been on a scale of lavishness exceeding anything produced by the tsars. Its stage holds about 2000 actors, which is roughly the size of the Bolshoi's permanent company. It includes scores of soloists, a chorus of 200, 250 dancers and about the same number of musicians. This grandeur is made possible by the sponsorship of the Soviet government, which attaches great impor-

The Soviet Union's largest department store, GUM (rhymes with "boom"), plays host to an average of 200,000 shoppers a day. Standing across from Lenin's tomb on Moscow's Red Square, the giant store has a rounded glass roof that gives it something of the aspect of a railway station. The initials GUM stand for three Russian words meaning "State Department Store." Built in 1893, the store was converted to government offices during the Stalin era, and then was reconverted to a shopping center in the mid-1950s.





Students wait patiently for the bell outside the entrance to their school in Moscow. The Soviet educational system provides, theoretically at least, for education "from the cradle to the grave." Three-month-old infants may be sent to a nursery school and elderly folk can attend classes at adult education centers.

tance to ballet and opera as means of expressing pride both nationally and internationally.

The ballets best loved by the people are still the old classics, *Swan Lake*, *Giselle* or *The Sleeping Beauty* and those which follow traditional romantic or fairy tale themes, such as *Cinderella*, *Romeo and Juliet* or the *Fountain of Bakhchisaray*.

Some of the newest Soviet ballets are suggestive of Hollywood spectacles. *Spartacus*, based on the story of the Roman slave who fought for freedom and became the leader of a rebellion which ultimately was suppressed, came complete with gladiators, dancing girls and simulated orgies. It was received rather coldly in the United States, where such scenes are ordinary. But they are something completely new in the Soviet Union, as are the erotic scenes for which these ballets set a precedent on the Russian stage. Before they appeared, even kisses were rare, and then quite chaste. The public finds the novelty bold and exciting.

The attempt to use the medium of ballet to advance Marxism-Leninism has not been successful. *The Red Poppy*, one of the few attempts, was generally considered an artistic failure. A recent ballet, *Vanina Vanini*, is based on a story by Stendhal which takes place in Italy in the early 19th century.

Muscovites go to the ballet mainly to see the stars. They are connoisseurs of the dance, their great thrill being to compare what one ballerina did with what another did not do, and to discuss the different interpretations and nuances each artist brings to her part.

Ballerinas have a higher position in society and in the hearts of the fans than do movie idols in the United States. The fans know all about their lives and artistic careers, although their marriages and love affairs are not publicized. Portraits of ballet people are sold to the public, as are those of stage actors and movie stars who are also very popular. But the ballerina comes first. Hers is a well-deserved triumph because, in the inhibited circumstances in which the Soviet artist must work,



the fairy tale world which the ballerina creates is one of the few areas where the Russians can fully release their enormous artistic talents.

PLAYS, MOVIES AND THE CIRCUS

Little playwriting of real importance has emerged in the Soviet Union despite Russia's magnificent theatrical traditions. This is due to the regimentation to which the authors have been subjected (particularly since 1934), resulting in self-consciousness and often in blatant propaganda.

Russians are not very impressed with the majority of their movies. Since the Communist Party considers movies one of its most important propaganda tools, the story lines are usually handled in an uninspired fashion and follow the artistic formula of the Socialist Realism school, which joins naturalistic description with the most idealized political interpretation. When love stories made their timid appearance in the late Fifties, the public flocked to the movies. The few great films that have come to the West are atypical

of Soviet films in general (but then, great films of any country are almost always atypical).

The Russians rush to see American films when they get the opportunity. The government imports a limited number, carefully chosen for their political content. Some are what we would classify as "B" pictures, but however unexciting they might be artistically, they give the Russians a glimpse of the forbidden and fascinating world outside. It is a distorted picture in many respects, but when American movies come to Russia, long lines form at the box-office.

Soviets love the circus, which has developed into a major theatrical spectacle. Soviet acrobats, jugglers,

dancers and clowns, drawn from all parts of the Soviet Union, have become so popular with audiences that the Soviet government is sending its circus around the world to earn, not foreign currency, but foreign goodwill.

LIFE UNDER COMMUNISM

Communist Leaders and the People

THE ENORMOUS CHANGES THAT TOOK place in Western civilization between 1914 and 1920 affected the entire social and political fabric of European life, but they appear relatively

minor compared with those that occurred in the autocratic Russian Empire at about the same time.

Over the years the tsars had been busy consolidating a colonial empire, including peoples of Turkish, Mongolian, Persian and Caucasian stock, and they had expanded across Asia to the Pacific. Russia had started to industrialize and to build railroads, but its political institutions had not kept pace. For centuries there had been peasant rebellions and since the last half of the 19th century there had been stirrings for freedom, and intense political agitation. All attempts to democratize the regime had failed.

LENIN AND COMMUNISM

Then came World War I. Under its impact, political institutions and the economy, archaic and unyielding,

The massive Ukraina Hotel, very similar in appearance to both Moscow University and the Academy of Sciences, is one of the capital's major post-World War II hotels. Its thirty-six floors of more than one thousand rooms have been the setting for many large conventions; it also serves as a home for foreign diplomats awaiting permanent accommodations.





Scene of the river Neva, in the heart of Leningrad. At right, the windows of a "restaurant-on-a-raft" provide diners with a charming view of the river and city. Leningrad is famous for its "white nights of June," when the sun sets so late that it is possible to read a book outdoors far into the night. Even the tennis courts are in use long after midnight during this eerily beautiful time of year.

collapsed. In the midst of this chaos Vladimir Ilich Lenin was able to organize a new kind of revolution, based on a blueprint taken from the economic theories of two Germans, Marx and Engels. The founders of Communism predicted that in a capitalistic society the worker would be doomed to exploitation and poverty which would increase with time, while a few would enjoy greater and greater wealth. They proposed, as a solution, that the state take over the means of production and distribute the output equally among consumers, according to their needs.

A Russian born before World War I came out of a long, cruel conflict only to be plunged into an even more cruel civil war. Hunger became even worse as the new

regime experimented, destroyed the old institutions and social order, fought the West and failed to re-organize the economy. The situation became so bad that Russia appealed for help to Herbert Hoover, then head of the American Relief Administration. The A.R.A. undertook a gigantic relief operation which saved the lives of millions of Soviet people. Lenin decided to retreat by adopting a policy which became known as N E P, or New Economic Policy. Small shopkeepers and those engaged in private commerce were again permitted to operate so as to help halt further economic deterioration,

with which the Marxist theorists were unable to cope.

For about three years the Bolsheviks tried to practice Communism as they had understood it in the manuals by Marx, Engels and latterly, Lenin. Workers were not paid money but were given coupons that entitled them to meals, clothes and free rides in public vehicles. There was no industrial substructure to support this experiment. The result was chaos, particularly when the peasants, who accounted for three fourths of the population, refused to cooperate. They were supposed to feed the nation and get nothing in return.



A truck delivers consumer goods to a local store in a small mining village. Although much emphasis has been put on the production of consumer goods, the demand still far exceeds the supply. Prices are extremely variable and by American standards may seem absurdly low or high, depending on the item in question. A loaf of black bread may be bought for a few cents, but such a "luxury" item as a small bar of chocolate may cost the equivalent of nearly two dollars.

They preferred to eat a cow rather than sell it for useless money. They were a conservative and suspicious people, accustomed to exploitation, which they had resisted as best they could for generations. Their centuries-long fight for freedom made them less than enthusiastic about the new regime.

STALIN AND COLLECTIVIZATION

Lenin died in 1924. His successor, Josef Vissarionovich Stalin, embarked on a ruthless program in an attempt to stimulate agricultural production. He declared class war on the *kulaks*, the wealthy peasants, taking away their land and forcing the rest of the peasantry onto collective farms controlled by the state. The produce of these farms was to be sold to the state at a price estab-

lished by the state. Sales were compulsory.

The peasants resisted collectivization with all their might, killing their cattle and hiding their harvest in protest, but to no avail. Armies of Communist Party agents descended on the villages, employing violence to achieve their goal. The *kulaks* and other peasants who resisted were sent to forced labor camps in Siberia. The rest barely managed to survive.

The situation was so tragic during those years of forced collectivization that bands of orphaned children roamed the country, climbing on trains and stealing whatever they could find in order to survive. People would make long journeys in search of food. Matters finally improved somewhat; in the Thirties the Rus-

sians no longer starved, though they still lived under austere conditions. Clothing was barely adequate; housing was appalling, with two families often sharing a single, small room.

Worst of all, Stalin had become an autocratic tyrant in the guise of a benevolent savior. The shadow of his power darkened every corner of the Soviet Union, casting a blight on the Russian spirit; yet, at the very same time, his literary toadies were lauding his godlike virtues in such mock-religious "poems" as the following:

"O, Great Stalin, O leader of the peoples,

You who made men to be born,
You who make fecund the earth,
You who rejuvenate the centuries,
You who make the spring to flower,
You who make musical chords vibrate,
You splendor of my spring,
O you, Sun, reflected by thousands
of hearts."

LABOR CAMPS

Corrective labor camps were filled with millions of prisoners. A high percentage of the prisoners had no idea why they were there, their questions receiving the most arbitrary answers—or no answers at all. Denunciation was the order of the day. For more than a decade no one could sleep peacefully; there was constant fear of the knock at the door, which could mean degradation, exile or death. No one could trust anyone.

Overwhelming testimony of people arrested at the time established the vicious nature of the Soviet system of interrogation. For example, a citizen was arrested because someone had denounced him. He was kept in prison and interrogated until he "confessed" that he had been an enemy of the regime. Then he had to denounce someone as the person who had "recruited" him. This snowballed until there were several million, some say twenty million, in the slave-labor camps.

There were few families in the Soviet Union who did not have at least one member taken away in the middle of the night. The population therefore knew what was going on. What it did not know was the psychopathic extent of these purges. The Russians assumed that the injustices stemmed from bureaucratic excesses of which Stalin was not aware. Otherwise, they thought, he would not have tolerated them.

At the same time, anecdotes which made the rounds during this period

acknowledged the arbitrariness of these years. One went as follows:

Ivan is running away, carrying his belongings on his back. His friend Sacha sees him and tries to stop him.

"Haven't you read about the new law?" asks Ivan.

"Which new law?" asks Sacha.

"The one about the camels," explains Ivan. "Everyone who has a camel must deliver it to Uzbekistan."

"But what does that have to do with you?" asks Sacha. "You have no camel."

"Yes," replies Ivan, "but what if they decide that I am a camel? Let me go. I must run."

STALIN AND HITLER

With the advent of World War II, Stalin hoped to save the Soviet Union from invasion by making a pact with Hitler. He proved to be a

true ally. He recalled the Soviet "volunteers" he had sent to Spain to fight in the Civil War. He instructed the French Communist Party to remain aloof from the French war effort. He attacked Poland. He turned over to Hitler the German Jews and even the German Communists who were in Soviet concentration camps. He supplied wheat, lumber and other products to Germany.

Stalin did not suspect that he would be betrayed, and he was therefore utterly unprepared for the German attack when it came. The German armies were able to advance to the very gates of Moscow. Eventually, with heroic effort, the Russian people, always at their best in times of emergency, recovered

their feet and drove back the invaders.

KHRUSHCHEV AND COEXISTENCE

But it was only after Stalin's death and the liquidation of Beria, head of the hated secret police, that the Soviet people were able to taste a measure of peace and freedom. Khrushchev, the new leader, concentrated on production instead of terror. He wanted more goods for the masses and more intellectual freedom. He realized that he himself had lived in terror of the tyrant. Russians and Westerners were permitted to mingle with one another with relative freedom. Young people bought and played jazz records. Khrushchev attended jazz concerts, including one given by Benny Good-

A street scene in Zagorsk, northeast of Moscow. Despite the overcoats, shawls and wool caps, summer has arrived and along with it the perennially popular ice-cream vendor.





The historic monastery of the Holy Trinity of St. Sergius at Zagorsk was founded in the 14th century and once served as a military fortress. Zagorsk, formerly called Sergiyevo, is one of Russia's most venerated holy places.

man. The Russian intellectuals tentatively explored less conventional forms of expression. Sensational books exposing the terrors of the Stalin era, such as *One Day in the Life of Ivan Denisovich*, were published.

In art Stalin's taste was for any painting that fed his egomania, such as schoolchildren greeting him with flowers while he smiled benignly, workers saluting him, soldiers parading before him. No negative sides of life could be shown. The arts had to serve the Communist cause. The school of Socialist Realism, which he sponsored, dictated the artistic formula: a worker in the fields had to be handsome as a Viking, and old men had to appear wise and beautified by age; the women were strong and enthusiastic, the children scrubbed and cherubic.

THE DENUNCIATION OF STALIN

Sensing the enormous discontent of the Soviet people, Khrushchev

denounced Stalin's crimes at the 20th and 22nd Congresses. The people breathed an immense sigh of relief. As in the story of *The Emperor's New Clothes*, the Russians suddenly recognized the truth. They remembered how much they had suffered, how bad things had really been, and how necessary it was to insure that the nightmare would never be repeated.

Stalin's body was removed from the mausoleum in Red Square which it had shared with Lenin. His statues were destroyed and even Stalingrad, the famous battleground and symbol of Russian resistance and final triumph, was rechristened Volgograd. (The renowned Battle of Stalingrad is now known as the Battle of the Volga.) This was hailed as the beginning of a new era in which intellectual freedom would be possible within the limits of the Communist ideology.

Khrushchev, unlike Stalin, started traveling all over the world. In

the United States his jolly exuberance was carried by television into millions of American homes. This was the time of "the Camp David talks," an attempt to establish cordial relations between the Soviet Union and the United States. Khrushchev was enormously impressed by the productive capacity of the United States. Being an astute observer, he could not but see that the great majority were enjoying a living standard that Marx could not even imagined.

American agriculture fascinated him. Then came the U-2 incident, in which an American intelligence plane was downed by the Soviets. For reasons which many attributed to internal politics, Khrushchev relapsed into combativeness. He hit the table with his shoe at the UN, brought new pressure on Berlin and threatened to turn the cold war into a hot one. That crisis was surmounted after President Kennedy announced that the United States would resist and go to war over Berlin if necessary.

THE SHIFTING WINDS

Khrushchev lost face with his enemies at home—the purged Stalinists who considered him a weak and unworthy successor to the Kremlin throne. He lost even more over the Cuban confrontation with President Kennedy. Forced to withdraw Russian missiles and planes from Cuba, Khrushchev reacted by trying to appear more tough and militant than ever.

Again it became risky for a Russian to be seen with foreigners in Moscow or to attend their parties without official authorization. Again the atmosphere became cloudy. There was a feeling of another change in the wind, away from the first whiffs of freedom. Artists and writers—the Soviet intelligentsia in general—were extremely disturbed and depressed. With the exception of a slavish few, however, they refused to retreat from their newfound position of freedom. An important Communist Party conference which was supposed to draft new orders to the artists and writers ended in failure without producing the expected directives.

The Khrushchev regime, having advocated peaceful coexistence between Communist and capitalist states, was having difficulty in keep-

ing Soviet intellectuals from extending this to friendly coexistence with intellectuals of the Western world. It was not easy to escape the internal consequences of an external policy which sought an accommodation with the Western world, especially in view of the threat from Peking.

Having tasted the change in favor of an easier and more liberal life after the death of Stalin, the Soviet people were not in a mood to turn the clock back. And this is a mood which Khrushchev and other Soviet officials may now have to take into account.

The Communist Party

The Communist Party, which rules Russia today, originated in the ferment of political ideas which gripped Europe following the social and economic changes brought about by the Industrial Revolution.

For decades the Communists worked on their dubious theories of class struggle, which sought to establish the working class as the only ruling class, reasoning that without the worker society would be para-

lyzed. They argued that this rule of the workers could not be maintained unless all workers of the world united and followed the same course.

When tsarism collapsed, the revolutionaries in Russia were a miscellaneous group, many of them simply desiring to see tsarism give way to a vaguely conceived democracy. They engaged in a bitter struggle for power. A hard core of determined Communists, representing a small minority, succeeded in prevailing over and in eliminating the others. Once they were in control, they established Communism as the political system of the land, which they renamed the Union of Soviet Socialist Republics.

The first decade was one of experimentation and of extraordinary upheaval. Then Stalin took over with the hand of steel which had earned him his name.

STALIN AND THE PARTY

The Communist Party was the only political party allowed in the Soviet Union. It was declared the instrument of the dictatorship of the proletariat.

Religious and secular authorities attend a concert of sacred music in a chapel of the Zagorsk monastery. The Orthodox Patriarchate maintains nine religious seminaries in the Soviet Union (the most recent having been opened in Novosibirsk, Siberia, in the early 1960s). Aspiring priests who graduate from these seminaries may attend theological academies at Leningrad or Zagorsk.





An elderly peasant woman from the agricultural region around Moscow. Her overcoat, a man's castoff, seems to symbolize her indifference—and that of many Russian peasants—to all things fashionable and "modern."

Theoretically, the power lay in the Congress of the Party, which met annually and reached agreements within a framework of party democracy. The Congress elected a Central Committee which functioned between sessions of the Congress and originated policy accountable to the Congress. But in fact, after Lenin's death, it was Stalin who won absolute control.

Stalin turned the Party into a severely dogmatic group with international ramifications. Through the Party, together with the police and the armed forces, he carried out the forced collectivization of agriculture with extreme ruthlessness. His methods defeated the purpose of the move, which was to secure more production and cooperation from the peasants. Resistance to Stalin's policies brought increasingly severe reprisals.

The Party became a blindly disciplined instrument of the government and above all of the man who controlled and ruled both the Party and

the government. It did not discuss orders, not even at the highest policy-making level. After Stalin's death, it was acknowledged in the Soviet Union that fear had turned Party members into "yes men" and that they had danced to Stalin's tune for decades. This has had a demoralizing effect on Soviet youth, who continue to ask why no one dared oppose the dictator.

KHRUSHCHEV AND THE PARTY

At the outset of Nikita Khrushchev's administration, there was much talk of "collective leadership" and "collective responsibility" in contrast to the "cult of personality," a Soviet euphemism for Stalin's dictatorship. However, the core of power remained in the Presidium of the Central Committee of the Communist party.

The key figure who presides over the Presidium is Nikita Khrushchev. He has not, however, acquired the concentrated dictatorial power which had been held by Stalin. He shares

his power with the other members of the Presidium, but the exact extent of this sharing and the exact relationship between Khrushchev and the other members of the Presidium remains one of the deeply hidden secrets of the Kremlin.

The Secretariat is another key agency of the Party. Stalin, as Secretary General, turned it into the most important arm of his dictatorship. Now, however, it has been reduced to a secondary role, below that of the Presidium.

JOINING THE COMMUNIST PARTY

Today membership in the Party is not only the "right" thing for an ambitious young man but it has also lost some of the formerly fatal dangers. Now, if he is caught with the wrong party line he loses his job and can be socially ostracized. But generally speaking, he does not go to prison or lose his life.

The Party has remained a relatively exclusive club, with a membership

A bookstall on Nevsky Prospekt in Leningrad. Such outdoor stands are seen almost everywhere, in large cities and small, throughout the Soviet Union. Books by American authors are especially popular in the U.S.S.R. More than 100 million copies of works by some 250 American authors have been sold. Jack London has proved the most popular U.S. writer, followed by Mark Twain and Theodore Dreiser. Other oft-read authors include Ernest Hemingway, William Saroyan, Walt Whitman, William Faulkner, Harriet Beecher Stowe and the perennially popular Edgar Rice Burroughs (author of Tarzan).





An elderly peasant woman guides two of her grandchildren in the use of an Orthodox prayer book. Children receive no religious education in the Soviet Union's state-run schools; the task of instilling traditional beliefs in children is left almost wholly to members of the older generation.

comprising about ten per cent of the population. This figure includes the Young Communist League (not strictly Party members) but not the Young Pioneers. Early in school, when children reach the age of ten, they are eligible to join the Young Pioneers. They wear a red neckerchief as a distinction. The Party provides Young Pioneer Palaces and holiday camps for them. When they reach 14, they can join the Komsomol, or Young Communist League. It is proper to belong; ambitious young men would not hesitate to do so. But young people today find the long political discussions and analysis of events from the point of view of Marxism-Leninism less than exciting. The Revolution is more than forty years old and to them it seems rather dull. There is nothing radical or daring or courageous involved in being a Communist. Much to the distress of the Party hierarchy, youth does not feel involved in a gigantic struggle for new ideas as it did a generation earlier.

Becoming a member of the Party in the past required the fulfillment of many requisites, one of which was to have a "class" background. Mem-

bers of the old nobility or bourgeoisie were not eligible. A proletarian revolutionary background was the best recommendation. Today the offspring of officials in power, though they have not known revolutionary struggle and are far from being proletarian, qualify because their background is impeccable.

It is in these highest spheres that doubts about the system have crept into the minds of the young who approach Communism with cynicism. But though their number increases, they still constitute a small minority.

The "old Bolshevik" is a romantic figure, usually pictured as a wise, heroic old man who has seen his ideas triumph. This figure differs very much from that of the present Communist Party official. But Communists enjoy respect and the regime is criticized only for details and bureaucratic shortcomings. This is done in many ways—on the stage, in cartoons, particularly in the satirical magazine *Krokodil*, and at the circus. Though bureaucracy is one of the permissible targets of criticism, discussion of the basic premises on which the whole system is built is impossible—at least for those who retain the instinct for self-

preservation. It is also impossible to criticize certain other things, however much they may worry the citizenry. Thus, the purges of the Thirties, which resulted in the imprisonment of several millions and gave rise to intense insecurity for years, were never mentioned in public.

THE COMMUNIST PARTY TODAY

The Party today has become mellow and sedate, as was inevitable, but membership still carries certain burdens as well as privileges. Divorce in the Soviet Union is not uncommon, but it is not considered proper for Communists, least of all for those in high positions. After the excesses of the Twenties, when there was free love, easy marriage and divorce and free abortion, the trend is to keep the family within the lines regarded by the leadership as correct and exemplary. Religion is considered a superstition unworthy of a self-respecting Party member. He is given positions of responsibility and he is expected to be equal to them. Many people do not join the Party for fear that membership might become too heavy a burden.

The Party sets the goals of Soviet economy and foreign policy. It also passes judgment on scientific trends and achievements and is the arbiter of artistic and intellectual developments. The current position of the Communist Party is that art, literature, cinema, radio, television and the stage should promote Communism. A play is not worth producing if it does not stimulate the viewer to work harder, to produce more and to strive for the ultimate goal of a Communist society where each man will receive according to his needs.

The philosophical and theoretical basis of Communism is taught in school. Courses in Communism are compulsory, much as Civics is in most United States schools. Factory workers are induced to take these courses after regular working hours. The government and the Party maintain that Communist indoctrination is necessary to promote production and a "correct" understanding of what the state is trying to do. A Soviet citizen is not considered educated unless he is versed in the theory and history of Communism, and it would be difficult for him or her to advance without a knowledge of the political and economic forces which move the Soviet system. Yet for all the propaganda work and

education over a period of many years, the great majority of workers and peasants have only a hazy notion of what the doctrine and the system are all about.

TRADE UNIONS AND THE PARTY

There are about 53 million workers in the Soviet Union; they are organized into 22 unions, all under the All-Union Central Council of Trade Unions. Structurally, the unions are set up on an industrial basis along the lines of the AFL-CIO in the U.S. But there the resemblance

ends. The Soviet unions are, in effect, an arm of the Soviet government and the Communist Party. Their primary aim is to stimulate the worker into increasing output for the state. A secondary function is to make the worker feel as happy as possible under conditions which are not very pleasant from the point of view of either wages or surroundings. Strikes are outlawed, and few of any real importance are definitely known to have occurred since the Communists established their dictatorship.

Nevertheless, some progress has been made in recent years above and beyond the facilities and benefits which had been available in the past, such as hospital and medical services, paid vacations, free tickets to theaters and other forms of entertainment. A minimum-wage law was

Lunch-time in Leningrad brings a line of customers to an outdoor kvas vendor. Kvas, a traditionally popular Russian drink, is a mildly alcoholic beverage similar to beer. Made from barley or rye, it is sweetened with sugar and often flavored with mint or pungent-tasting juniper berries.



put into effect for the first time in 1957. The 48-hour week was cut to 46 hours and then to 40 hours—7 hours a day for 5 days and 5 hours on Saturday, with Sunday a holiday. An improved pension scheme also was put into effect.

Though the Russian receives far less than his opposite number in an industrialized Western country for the same amount of hours, he has one advantage. He need never worry about being without a job. There is no unemployment in the Soviet Union.

Rural Life Before Communism

When the Soviet Revolution broke out, the peasants accounted for 85 per cent of the Russian population. Until serfdom was abolished in 1861—about the time of the Civil War in the United States—and the

peasants were declared personally free, they had been tied to the land and had been sold along with it. Though they were not slaves and had certain rights to the land as tenants, intricate debts of money and services kept them in bondage. For practical purposes they were at the mercy of the landlord, much like former Negro slaves on plantations.

This parallel must not be carried too far, however. The serfs were not different racially from their landlords. Unlike the uprooted Africans, whose language and religious beliefs the owners did not even understand, and who were further set apart by color as well as by their position, the Russian peasants represented the most solid traditions of the land. Even their superstitions were remnants of common pre-Christian religion. Their forced stability made

them the depository of the country's rich folklore. Customs, ceremonies and beliefs continued unchanged in the villages long after Peter the Great and the winds from the West that came with the Napoleonic wars had swept them away from cities and towns.

The abolition of serfdom, which had been preceded by constant peasant uprisings, had become imperative. The immobility of the peasant on the land was impeding modern industrial development by keeping manpower in the villages. The time was ripe and the tsar had to give in, however reluctantly, to the pressure.

IMPORTANT EVENTS IN THE VILLAGE

The life of the village was organized around the requirements of farming. Agricultural work was started or finished, tools were taken out or put away. All this, which took place year after year in a traditional pattern, was accompanied by ceremonies, rites of ancient origin or the blessings of the Church. Ears of wheat were placed under the icons to bless the seed, and animals were sprayed with holy water when first taken out into the fields. Every change in the routine was highlighted. Births and marriages, deaths and wakes were given great importance and were accompanied by long preparation and celebration.

One of the most important events in village life was the bittersweet leavetaking of recruits called to military service, which lasted 25 years. Masses were celebrated for them; they were given big farewell parties, and for a month prior to departure the youths went about the village singing and playing their balalaikas. When the time came, the whole village saw them off, their parents carrying the icons to bless them, knowing well that they might never see them again. The men themselves were aware that they were leaving their entire life and their loves behind them.

But things were not always so dramatic. At certain times of the year, Russian villages were enlivened by fairs and the arrival of the peddlers who brought city wares to the country and bought local crafts from the peasantry.

THE 'IZBA'

The peasants lived in wooden houses or in that specifically Slavic creation, the *izba*, the traditional house made of logs which, with



variations in detail, could be found throughout most of Russia.

The *izba* was a simple but very cleverly designed square structure which served admirably the purpose of shutting out the cold and of sheltering animals and tools. It was decorated with beams ending in carved heads of animals. In certain regions of the North, the outside was painted with floral designs, and window frames were often enhanced with bright colors.

The name *izba* itself is derived from a root which means "to heat." In architecture the *izba* ranged from the windowless, chimneyless black *izbas* of the poorest to the more prosperous white *izbas* of the wealthier peasants, complete with green windowpanes, painted wooden chests from Novgorod and a chimney which carried the smoke of the stove out of the house. This improvement is found almost everywhere today. The black *izba* remains only in a few districts of the North.

THE STOVE-OVEN

The heart of the *izba* was and still is the stove-oven, a combination of cooking stove, heater, oven, bed and even bath. This combination proved so successful, not to mention versatile, that it is still widely used. It is a large and cavernous furnace, very economical in the consumption of fuel.

Besides serving the customary function of providing heat for warmth and cooking, it was sufficiently large to accommodate human beings and provide them with steam baths. The technique was as follows: after bread was baked in a well-heated oven, a handful of flour was thrown on the hot floor. If it did not burn, the temperature was right. The floor was then covered with straw and a container of hot water was put into the oven. Inside, the peasant had his steam bath. After scrubbing himself vigorously and beating himself with birch branches, he ran out and threw himself into ice-cold water or rolled in the snow. These baths, comparable to the Finnish sauna, are widespread throughout Russia and can be found in every village. They are not taken in the oven, though, but at bath-houses specially built for that purpose.

To make its usefulness complete, the flat roof of the stove served as bed for the master of the house. In the bitter cold of the Russian

An elderly folk musician of the Estonian S.S.R. plies the reeds of a bagpipe. Along with the native Estonians, who comprise nearly three fourths of the population, there are many Russians in this Soviet Baltic republic. The latter live mostly in the larger urban areas, particularly Tallinn (the capital) and Tartu.

winter the stove had immense importance. Old pagan mythology had a special place for this minor, but most benevolent, deity of the house.

SUPERSTITIONS AND TRADITIONS

Superstitions were prevalent in the villages. When peasants moved into a house or built a new one, they performed a series of rituals. The housewarming was a must. Relatives and friends brought presents and there was general merrymaking. The hosts took great care not to provoke evil spirits. They saw to it that they did not offend the guardian spirit of the house, which was asked to move in with them or was brought into the house in a brazier of hot coals. Today housewarming parties are still a tradition. Recently, telling the public that there would be more housing, Khrushchev spoke of the number of "housewarmings" to be held that year.

The corner where the stove stood was "the best corner." It was also the place of honor for guests, the dining table and, very prominently, the icons, the sacred images. Today most peasant homes in Communist Russia still have both stove and icons in the traditional corner.

FURNITURE IN THE 'IZBA'

The furniture of the *izba* was very simple, mostly benches built into the structure. Gradually furniture of the kind used in the cities was introduced, such as Western-style chairs, tables and beds. Beds came particularly late, and then only to the wealthier households. The turmoil of Russia's constant upheavals brought about a flow of furniture and goods to the countryside, peasants taking them in exchange for their produce. Peasants who had hoarded money during and after World War II

A group of folk singers from Dyushambe (formerly Stalinabad) play the rubobi, a popular native stringed instrument. Dyushambe, the capital and cultural center of the Tadzhik S.S.R., is within one hundred miles of the border of Afghanistan. A village of 6000 in 1926, Dyushambe was converted into an important metropolis in less than thirty-five years.





A worker harvests peaches on a state farm, or sovkhoz, in the Kazakh S.S.R. Here, in an area once called "the hungry steppe," irrigation has transformed barren wastelands into a fertile agricultural region.

poured into the cities to buy anything they could lay their hands on when it became known that there would be a currency reform. Thus it was possible, even as late as 1948, to see rustic-looking men in *valenki* (felt boots) and old padded jackets racing to the trains carrying an Edwardian porcelain lamp, complete with frilly shade, or some other improbable treasure.

When the peasants were not splurging on a big feast, with typical Russian abandon, their diet was very simple. The daily menu consisted of *kasha* (cereal) and a cabbage soup, into which the rich, moist black bread of the Russians was dipped.

Rural Life After Communism

Life in the Russian countryside changed radically after the Revolu-

tion. The farmer's relationship to society and to the authorities, his religious environment, his education and the economic structure are no longer the same. The ideology which is constantly being promoted uses words such as "materialism," "dialectics," "capitalist contradictions," "Marxism," "Communism"—words which echo strangely from the lips of a peasant farmer.

But the villages look very much the same as before. The same wooden houses line the road, their window frames adorned with wooden lace-work. There are the wells with hand pumps for drawing water, and the outhouse at the back. Seen from afar, a church which has perhaps been turned into a school or a barn, would seem unchanged. Peasant women still wear kerchiefs tied under their chins.

There are new buildings as well. Collective farms contain several villages within their boundaries and the administration house is often

new, with production charts and pictures of the leaders adorning its walls. Machine depots, silos and modern dairies have added their 20th-century touch to the countryside here and there. Time has brought electricity to many communities, and with it radio, music and political indoctrination. Farmers enjoy the advantages of nurseries and clinics. The club, which doubles as movie house and lecture hall, is the cultural center of the village.

But the general appearance is of old-fashioned rusticity. The streets are not paved. The roads get very muddy, particularly when the snow that has kept the village looking like a set for a winter fairy tale starts to thaw. There are few cars. It is common to see the women in the fields; this is a Slavic tradition. But after the great losses of World War II Russian women became the pillars of the farms. Women normally participate in all the labors of the farm on a par with men.

When foreigners are invited to visit a *kolkhoz* (collective farm), they are able to confirm that Russian village hospitality is still the memorable thing it always was. Most of the time they will not be able to eat much more of the meal than the *zakouski* (hors d'oeuvres). When the ice is broken after a few vodkas, villagers show they like to dance and sing as much as did their ancestors.

THE COLLECTIVE FARMS

There are two types of farms in the Soviet Union—collective farms and state farms. Collective farms were created by the amalgamation of several farmsteads and villages. The peasants became the joint owners of the farms and theoretically held them in perpetuity. In 1960, in an effort to increase productivity, collective farms were increased in size, incorporating as many as fifty villages in some cases. The 254,000 collective farms which existed before have been consolidated into about 45,000 today. They account for roughly half the population of the country and about 80 per cent of the country's agricultural output.

It is evident that the "perpetuity" allows for considerable elasticity. The directive to enlarge or to diminish the size of the farm came not from the farmers but from the government.

Collective farmers own implements and cattle jointly. They buy the seed and pay for services out of a common fund. They sell their products to the state, which pays a fixed price for them and expects fixed quotas of produce. They are also given a small plot of land which they can cultivate as they see fit, either keeping the produce for themselves or selling it on the open market. This plot varies in size between a quarter of an acre and one acre.

Work is carried out according to schedules fixed by the director of the *kolkhoz* and paid according to a scale. Farmers are paid on the basis of "work days," a unit not of time but of labor. A certain job may be worth two or three work days, another less than one work day, even if it takes more time. Work on the private plot is done in the farmer's own time, as we in the West work in our gardens after office hours.

The collective farmers, in reality, are sharecroppers. The Soviet state is the landlord. The share taken by the landlord was and still is exorbitant, leaving so little for the peasant that he and his family

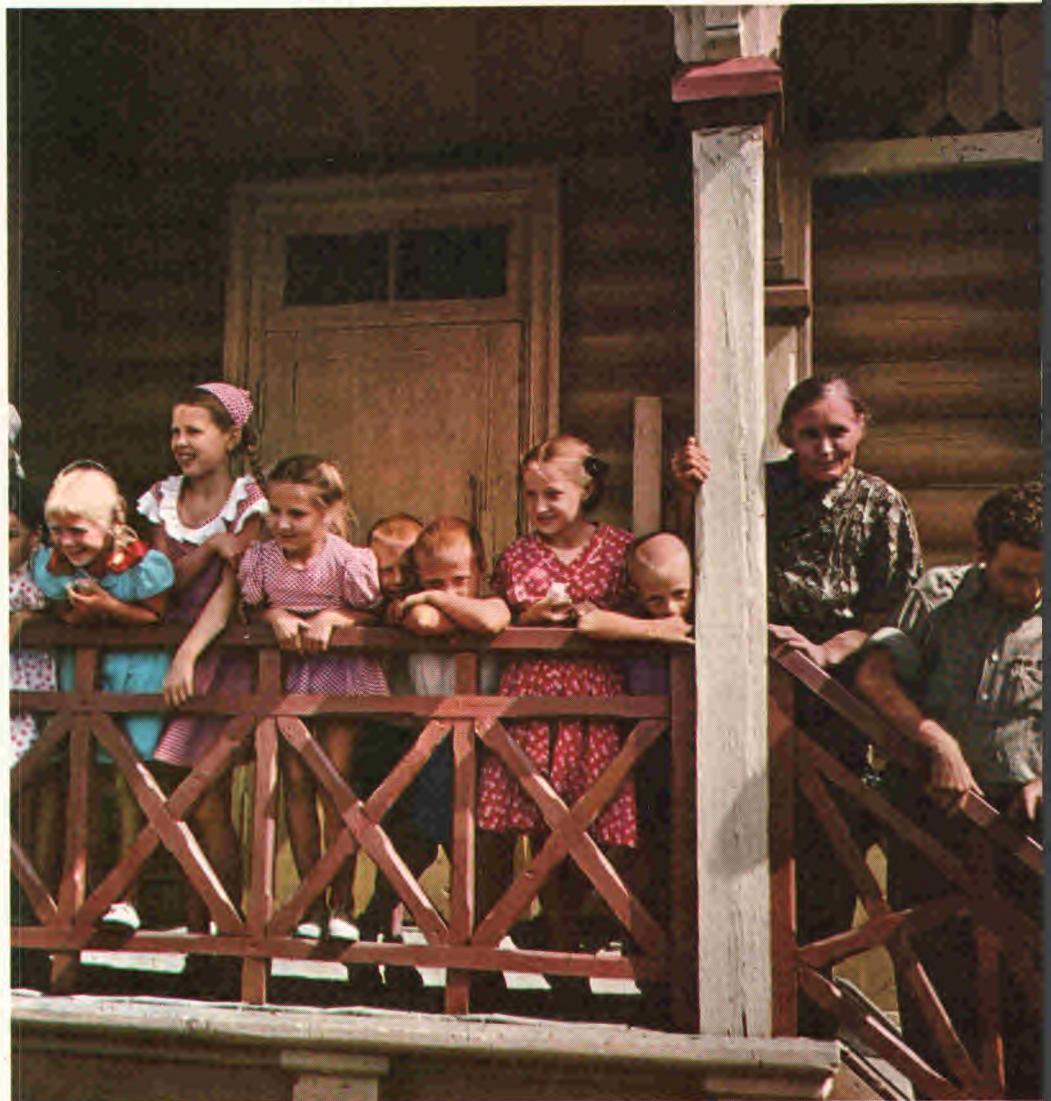
have been discontented ever since they were forced onto the collective farm.

The idea that farmers should be paid more and allowed more initiative did not occur to Stalin—he relied on propaganda, pressure and force. Armies of political party agitators roamed the countryside urging the peasants to give their all to the collective effort, which, they were told, would eventually result in abundance for all. Some of the young and the eager listened and became heroes or heroines of labor, but the majority did not. As soon as they produced more, the state demanded more, and the peasant found himself standing still.

The collective farmer turned more and more to his private plot of land—the only literally profitable land available to him. The privately held plot became a diversion from and a

competitor of the government-controlled collective farm. Stalin considered eliminating the private plots, but they had become such an important part of the economy that he could not ban them without serious consequences. Today, though the private "garden plots" account for only 4 per cent of the cultivated land, they produce 80 per cent of the eggs, half the meat, milk and vegetables and more than 60 per cent of the potatoes consumed in the country.

Three generations of a Ukrainian family crowd the front porch of their wooden house, or chata. The chata, similar to the izba of Russia proper, has been the typical house of the Ukraine for many centuries. Today it is somewhat more comfortable than in the past, but still retains many of its traditional rustic aspects. Generally consisting of two or three rooms, the chata, is sparsely furnished inside and contains few, if any, modern household conveniences.



A WRITER'S VIEW OF COLLECTIVE FARMS

The unsatisfactory situation on the collective farm, as it was under Stalin and as it still is pretty much today, has only recently been acknowledged even by Soviet writers. Exercising the greater freedom permitted after the death of Stalin and the advent of Khrushchev, the Leningrad literary monthly *Neva* published a short story by Fyodor Abramov which painted this picture of apathy, discontent and failure of collective farm life after more than forty years of Soviet rule: "Seventeen

years after the war we are still fighting on the farm for every pound of bread," exclaims Anany Egorovich Mysovsky, chairman of the *kolkhoz* in Abramov's story, "Round and About."

It is the middle of the harvest season and Mysovsky is conducting his inspection tour of the farm. He finds one of his tractor drivers drunk, another stuck in a ditch. Villagers are lolling about in community bathhouses instead of working in the fields. For five months they have not received a single *kopek* of advance wages because there has been

no money in the collective's treasury.

Mysovsky looks around and finds the fields practically deserted. Where are all the peasants? He finds them behind their cottages, working their private plots. He discovers that the silo has been abandoned. He goes to the home of the farmers who are supposed to be looking after it and he is told: "Let the hay rot. Let the peas go to ruin."

Mysovsky spots three women, who were supposed to be in the fields, returning from the forest. They are loaded down with mushrooms.

"So this is what you call work?" the *kolkhoz* chairman exclaims.

"Well, we aren't the only ones," a woman answers. "If there were more *kopeks* in the *kolkhoz* we would not have to go to the forest for mushrooms."

"But where are we going to get these *kopeks*?" asks Mysovsky. "Do you think they fall from the sky?" In other words, if the peasants don't work on the collective farms then the latter cannot produce and cannot earn money for distribution to the peasants.

"We've been hearing that talk for 15 years," retorts one of the women. "I've been in the fields all summer and what did I get for it? My children will be going to school soon, and they have no shoes and no clothes. We go to pick mushrooms because we can sell them at the store and bring a *kopek* or two home."

Mysovsky sadly tells himself: "It's the same old story, a real vicious circle. In order to be paid well, people should work full steam since the *kolkhoz* has no other resources but their work. But people will not work for the *kolkhoz* because they are not well paid. How can I break the circle?"

He takes a few drinks and, feeling abnormally bold, he decides to break the circle by offering the peasants 30 per cent of the harvest instead of the 10 per cent as fixed by regulations. The fields are instantly filled with peasants, who are galvanized into action by the promise of three times more than they had been offered in the past.

Then Mysovsky sobers up as he walks toward the home of the local Communist Party boss to confess



A shepherd of regal countenance and humble attire tends a flock of Karakul sheep on a collective farm in the Turkmen S.S.R.

what he has done—and to hear what fate awaits him for having broken the arrangement for the division of the produce between the landlord and the "sharecropper."

THE TROUBLE WITH COLLECTIVIZATION

The story indirectly recognizes that Soviet peasants even today do not reconcile themselves to the loss of the privately owned farms of their fathers and grandfathers. Stalin embarked on the collectivization of agriculture in 1929 as a "revolution from above." His reasons were ideological, political and economic. The peasants at first refused to join the collectives and even resorted to armed uprisings, but resistance eventually was overcome. The number killed in the course of the resistance and the uprisings ran into the millions. The number of peasant households fell by 1937 to 19 million, a decline of 7 million. Between 1928 and 1933 roughly half of the horses, or 18.5 million, and half of the cattle, or 36.7 million head, disappeared from Soviet farms. Agricultural output fell by 30 per cent.

By 1938, however, when 93.5 per cent of all peasant holdings had been collectivized and the 26 million individual holdings of 1929 had been merged into 235,000 collective farms, Soviet agriculture began to recover somewhat. The problems which continue to trouble the peasant today are interference by Communist Party bureaucrats, who are being replaced to some extent by trained agricultural technicians, and inadequate pay for their labor. The only income the peasants receive is their annual payment in money and goods. Once they have spent their earnings, they either starve or are forced to rely on income from private plots. There are plans to correct this by arranging monthly payments to farmers.

MECHANIZATION

Collective farms used to pay a disproportionate part of their income to machine and tractor stations for their services. The stations were

A tea plantation in Adzharistan, in the southwest Georgian S.S.R., is bordered by numerous stands of specially planted trees, which protect the fragile crop from the hot, dry winds blowing across from the deserts of Turkey and Iran. Adzharistan, the smallest autonomous republic in the U.S.S.R., is the principal Soviet producer of tea and citrus fruits. Its subtropical climate attract thousands of tourists and vacationers each year.



In a small mountain village of Georgia a group of children sit at the feet of an old sage reputed to be 120 years old. Such old patriarchs, though they no longer wield family or civil power as in the old days, are still widely respected for their traditional wisdom and knowledge of age-old beliefs.



abolished and turned into repair and service centers, and the machines were sold to the most advanced *kolkhoz*. Five billion rubles worth of machines were sold between 1958 and 1961. This has been a great improvement, as it has taken the collective farmers from their menial, underpaid jobs and encouraged them to become modern farmers, able to work with modern machines and increase their income. Of course, it will take time to pay off the five billion rubles, and collectives have only half the mechanized equipment and transportation available to the state farms.

THE STATE FARM

The state farms are run like industrial enterprises, with workers getting fixed wages and having nothing to do with selling or buying products. There are state farms all over the U.S.S.R. The majority of the farms which have been established in the newly reclaimed virgin lands in Asia are of this type. There are about 7400 state farms; they average about 60,000 acres each, which makes them much larger than the collective farms. They account for about 30 per cent of the total cultivated area and for about 20 per cent of the country's total output.

A band of young children cavort in the playground of a state-run nursery in Moscow. Since it is common for both parents to work in order to make ends meet, small children—some of them only three months old—are often cared for during the day in such institutions.

The government would prefer to turn all farms into state farms, believing that this would solve its difficulties with the collective farmers. Undoubtedly the government's preference for the state farms over the collective farms stems from its easier control over the former and the failure to solve its difficulties with the latter. The state farms are increasing in number and the government has already begun converting the poorer collectives into state farms. It may be relevant to point out that Cuba, at the outset of its Communist experiment, established collective farms which later, under the guidance of Soviet experts, were turned into state farms.

However, the collectives already have taken hold in the Soviet Union, and it will not be easy for the government to uproot them. Soviet peasants may dislike the collective farms, but they dislike the state farms even more.

U.S. vs. U.S.S.R. AGRICULTURE

When he visited the United States, Khrushchev was astounded by the productivity of American agriculture. Since Khrushchev was close to the peasant and the soil, appreciating better than most the enormous importance of a nation's capacity to pro-

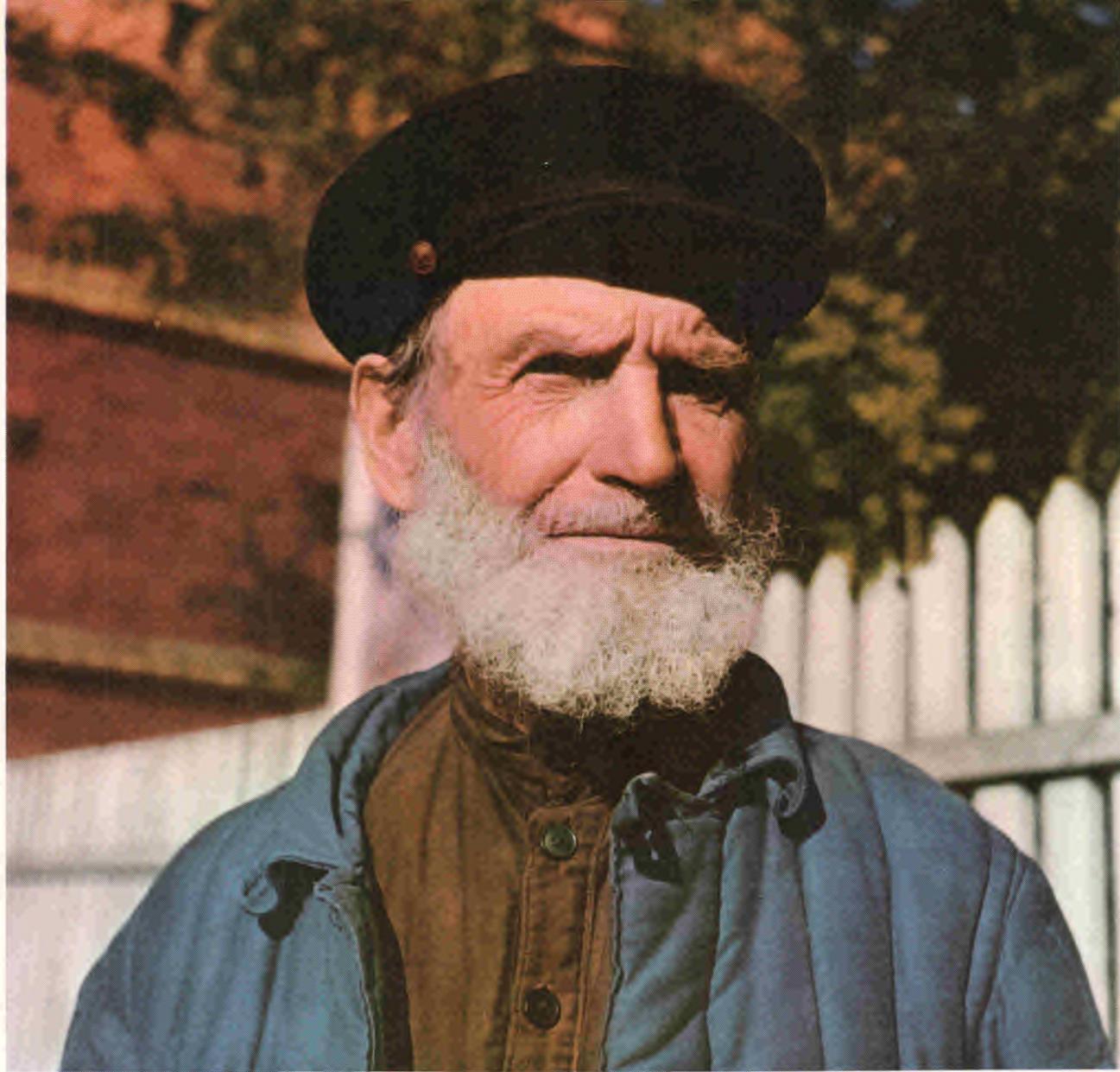
duce food, he was particularly interested in inspecting agricultural production in the United States. The flood of foodstuffs from America's farms he saw during his visit is said to have impressed him and to have influenced his attitude more than anything else he saw.

When he returned to the Soviet Union, he proposed that the Soviet Union adopt some of the successful methods of the United States. He tried to reduce the heavy bureaucracy which weighed on the peasants' backs by decentralizing controls. He also intensified a campaign against the bureaucrats who were falsifying their figures so as to escape the penalties for not meeting impossible production norms.

Khrushchev recognized the need to offer the peasant a monetary incentive to produce. Accordingly, the average annual monetary income of a Soviet farm family, which was \$60 under Stalin, was permitted to increase to \$200. However, the peasant was not permitted to spend the entire amount on the consumer goods which he wanted—radios, television sets, phonographs, electrical appliances and other modern conveniences. Instead, a good share of the increase was diverted to communal facilities, such as schools, hospitals, nurseries for children and libraries.

Khrushchev is not finding it easy to bring Russian agricultural produc-





tivity up to that of the United States, where a farm force of 7.4 million cultivating 329 million acres produces about 60 per cent more food and fiber than the 48 million Soviet farmers working on 500 million acres. The principal reason for the difference is that the American farmers have 4.8 million tractors and 3.1 million trucks, whereas the Soviet farmers have hardly more than 1 million tractors and 776,000 trucks, which often are bogged down in muddy roads. Furthermore, the Americans annually use 26 billion kilowatts of electricity and 7.5 million tons of fertilizer, whereas the Soviets use 8.5 billion kilowatts and 2.5 million tons of fertilizer.

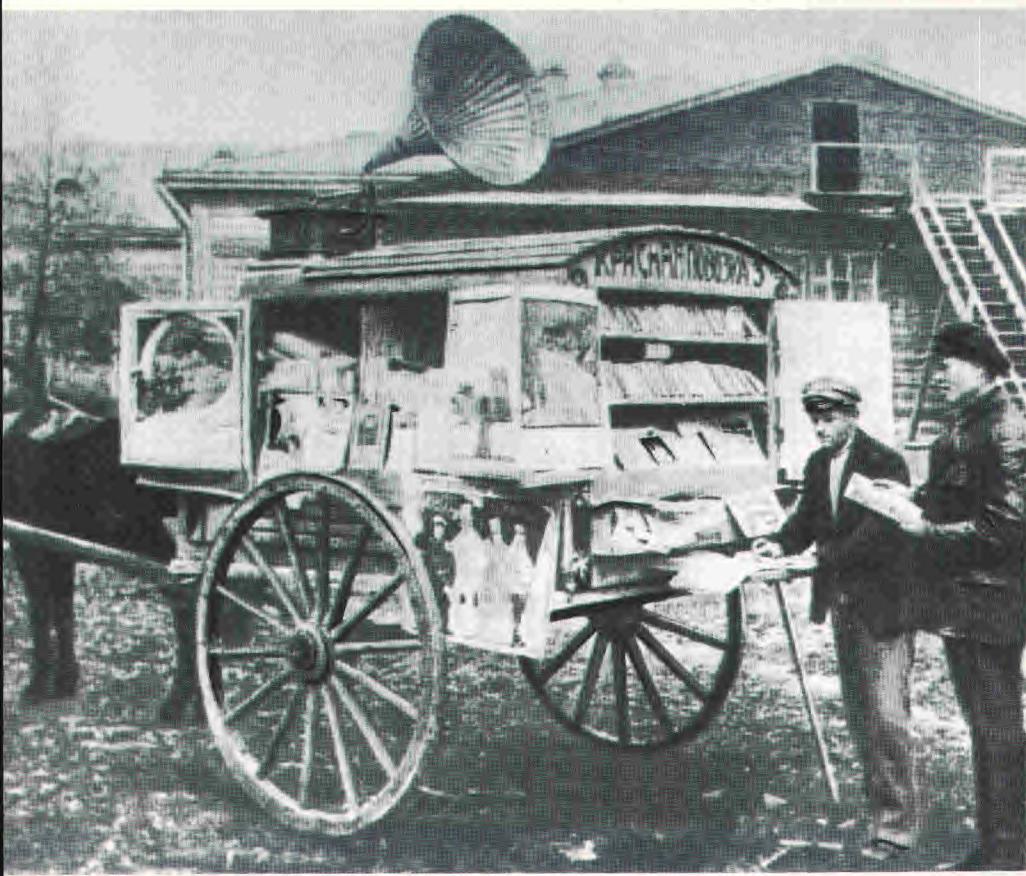
American farmers who visited the Soviet Union recently estimated that Soviet agriculture today is where American agriculture was about fifty

Belorussian peasant in a village near Minsk. The Belorussians are often called White Russians—an ethnic name that has no relation to the political group called "White Russians" who fought the "Reds" during the Russian Civil War of 1917-21. Traditionally, the Slavic peoples of Russia are divided into three main groups: the Great Russians; the Ukrainians, or Little Russians; and the Belorussians, or White Russians.

years ago. They found two great handicaps: uncertain weather (the greater part of Soviet cultivated land lies farther north than Nova Scotia) and the Soviet economic system, which robs the farmer of incentive. Very little can be done about the weather, as yet, but Khrushchev is trying to modify the economic system so as to induce the peasant to work. He already has had some success, and foreign visitors have recognized that Soviet agriculture is moving ahead. But they have also recognized that it has a long way to go before it approaches the levels of the advanced Western countries.

RELIGION UNDER COMMUNISM

UNTIL THE COMMUNIST REVOLUTION in 1917, Russia, with her thousands of churches, was one of the most devout countries of the world. The religious fervor of the peasants was often close to fanaticism. Pilgrims roamed the country, leaving their families behind, and traveling sometimes as far as Palestine. They lived on charity. Wherever they knocked, they were taken in as messengers of God and treated with reverence. Candles burned under the icons



Immediately after the 1917 Revolution the Bolsheviks instituted an intensive program of mass propaganda that has continued to this day. In the early 1920s a common slogan (among Party members only) was: "First propaganda, then bread." Here, in a photo taken at the time, a horsedrawn cart in rural Russia disperses propaganda in the guise of "culture."

(images) in every house of the land. When a Russian entered a room, he bowed in the direction of the sacred images before he greeted the family.

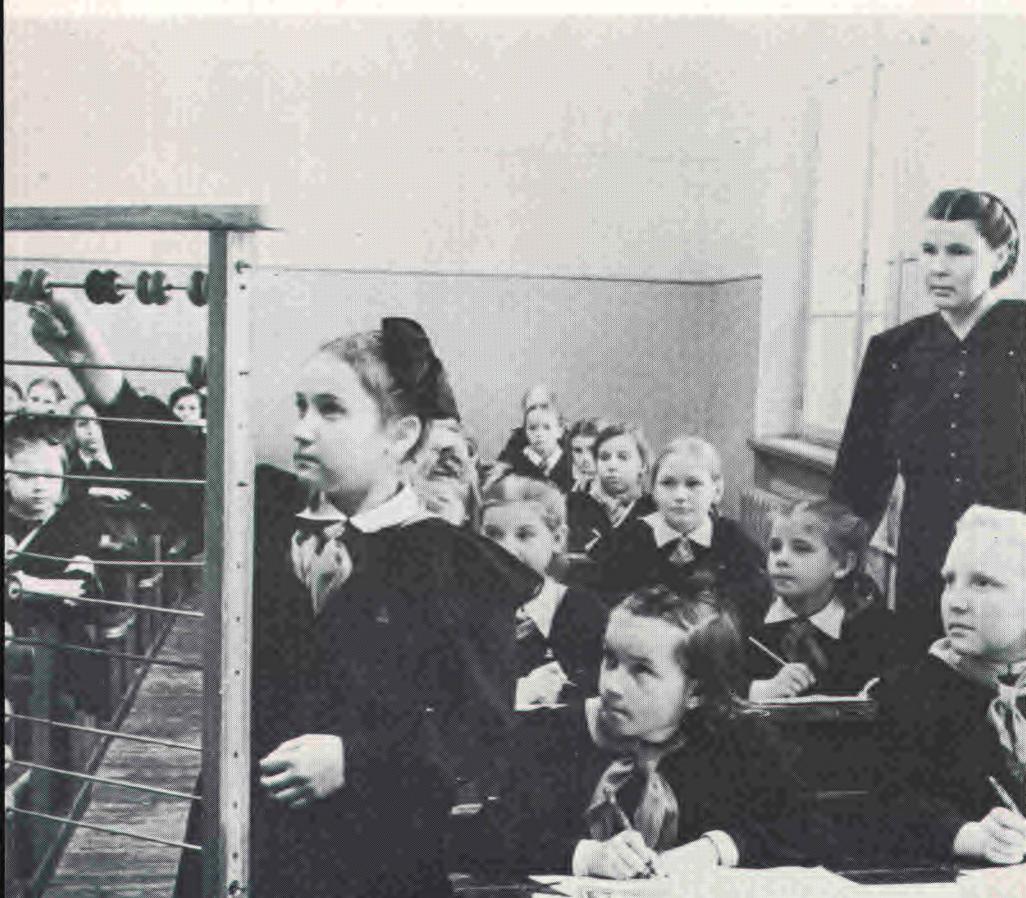
State Against Church

This was the religious climate at the time of the Communist Revolution. Then suddenly religion was proclaimed a superstition unworthy of an enlightened people. The State embarked on a violent campaign to eradicate religion—a campaign which continues to this day, although it is no longer violent.

In the first few years after the Revolution, the campaign, based on the militant atheism of the State, was aimed at the Church. An Anti-Religious Museum was set up in Leningrad, where for many years it served as a kind of "chamber of horrors." Its aim was to ridicule religious practices and to turn people away from the Church. The Patriarch and large numbers of the clergymen were imprisoned. Church property was confiscated, monasteries and convents disbanded, churches turned into warehouses. The purges of the Thirties found a ready prey in churchmen, many of whom were sent to concentration camps.

For two decades, religion lay prostrate, but it remained alive in the hearts of the believers. The flock had become smaller, as older generations passed away and new ones came under atheistic indoctrination, but those who maintained their faith did so with a fervor difficult to find elsewhere.

During World War II when Hitler's armies marched on Moscow, Stalin did not hesitate to acknowledge that religion was still a very important factor in the Soviet Union. In this time of peril, he saw that the dominant Russian Orthodox Church



Interior of a girl's secondary school in Moscow during the early 1950s. From the middle of World War II until 1954, boys and girls were taught in separate schools; this was mainly to allow young male students to prepare for military service. In 1954 coeducation was resumed throughout the U.S.S.R.

A class of aspiring young artists paints during an outing in a Moscow park. Such activities form only a small part of the normal curriculum. However, students who demonstrate exceptional artistic ability may later receive special training at a school for graphic arts run by the Ministry of Culture.

could prove useful in mobilizing support for "Holy Russia." The government temporarily suspended its anti-religious campaigns, changed the museum in Leningrad into a subdued "Museum of the History of Religion," permitted the reopening of a number of churches and provided facilities for clergymen. In 1943 the Patriarch of Moscow and All Russia was officially installed. Hitler's armies had advanced with a crusade to open the churches. Stalin's counter-move was to open them himself. When the Germans were pushed back, many churches remained open.

The Church had proved itself loyal as well as useful. At the end of the war the Soviet government maintained a kind of live-and-let-live arrangement with the Patriarchate. The Russian Orthodox Church, completely controlled and submissive to the government, had in a way reassumed its previous official capacity. The faithful themselves were not harassed.

The Soviet constitution states that "freedom of religious worship and freedom of anti-religious propaganda is recognized for all citizens." The regime, therefore, did not feel it was contradicting itself when it resumed the anti-religious campaign, this time on an ideological and intellectual level.

DECLINE OF THE CHURCHES

Before the Revolution, there were about 60,000 churches. By 1941 they had been reduced to 4000. Russian delegates to the World Conference of Churches in New Delhi in 1962 claimed that the number of churches had increased to 22,000. However, foreign experts who have traveled widely in Russia estimate the number at between 7000 and 10,000.

The Orthodox Church today is financed in part by the sale of candles. Churchgoers also support it by putting money in the collection plate. Most churches in the cities do not lack money, and some are even wealthy. Smaller communities have more difficulties. Church buildings are state property and are leased to the faithful once they satisfy the minimum membership requirement.



Simplicity is the keynote of the everyday attire of elderly women in many parts of Russia. Their plain clothing generally consists of an unadorned dress and a shawl worn around the head and shoulders.

The community is responsible for maintenance.

The Communist Party further increases the difficulties of churches in small communities by discouraging the people from meeting their church responsibilities. Agitators, who are like traveling salesmen peddling the Communist line, go to work telling people that they are spending too much on the church. They point out that the time the men spend working on church maintenance jobs could be better spent earning their own money in the fields. The agitators suggest that the people could save themselves money and trouble by joining the church in the neighboring village, encouraging the members of small congregations to leave their churches. When the number of parishioners falls below the required minimum, of course, the church is closed by the government.

In spite of Communist efforts to dissolve the Church, there is still a monthly journal published by the Patriarchate. There are also a number of seminaries of high school level and two academies for higher studies and training for the Church. The most important academy is at Zagorsk, a picturesque village near Moscow, famous for its Monastery of the Trinity and Saint Sergius. It is also the seat of the Russian Orthodox Church and its Patriarch.

THE EASING OF PRESSURE

With the advent of the regime of Nikita Khrushchev, the Soviets gave clergymen greater opportunity to travel abroad and establish closer relations with Christian leaders in the West. Accordingly, one delegation from the U.S.S.R. was able to attend the Ecumenical Council at the Vatican, and another was allowed to participate in a conference of religious leaders in the United States. The audience at the Vatican which Pope John XXIII granted to Mr. and Mrs. Alexei Adzhubey (son-in-law and daughter of Nikita Khrushchev) was considered a possible turning point in nearly half a century of ideological warfare between the Roman Catholic Church and the Kremlin.

In spite of the improvement in the relations between church and state, churches are attended primarily by elderly and middle-aged women. Government officials, high-ranking members of the army or navy, and the upper class of Soviet society are conspicuously absent. Members of

the Communist Party are expected to be "free thinkers." A career in the Party would be unthinkable for a believer.

THE PERSISTENCE OF BELIEF

Many wonder how religion, under constant Communist pressure, can spread to the younger generation.

At the age of seven the child comes under the atheistic influence of the State. When he reaches the marriage age, he or she is often too out of touch with the Church to marry in it. Consequently, church weddings are uncommon. However, children may be baptized. In Vilna, a Communist official told an American, "I am an atheist, but when my mother comes to visit, I take her to church in my car."

Nearly half a century after the Communist Revolution, an estimated 52 million people in the Soviet Union (one fourth of the population) retain their religious beliefs. The largest group is Christian (30 million). Most of these are Orthodox, followed by Armenians, Roman Catholics, Lutherans, Union of Evangelical-Baptists and Reformed. The second largest group is Moslem (about 24 million). There are an estimated 2 million Jews.

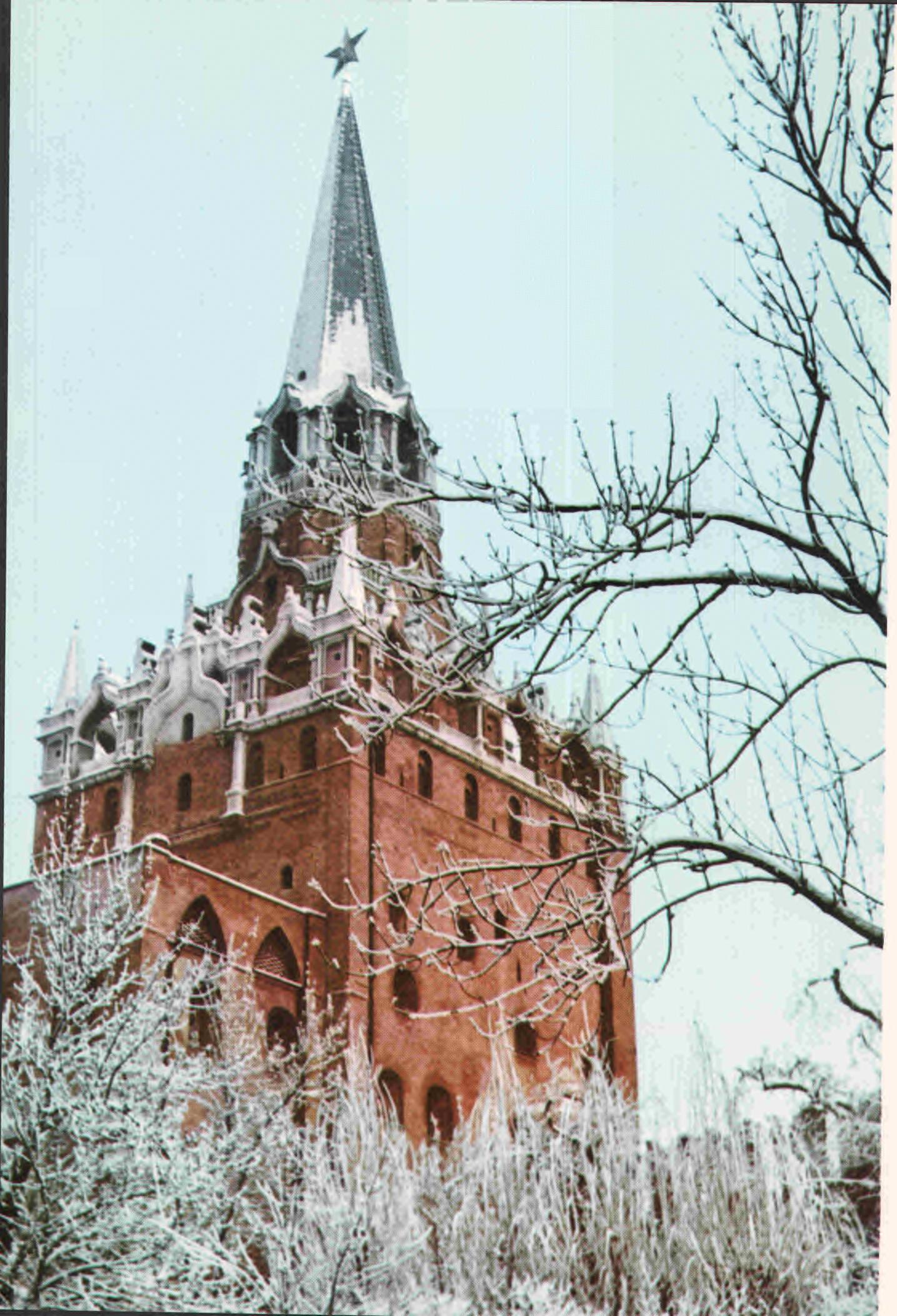
MOSLEMS AND JEWS

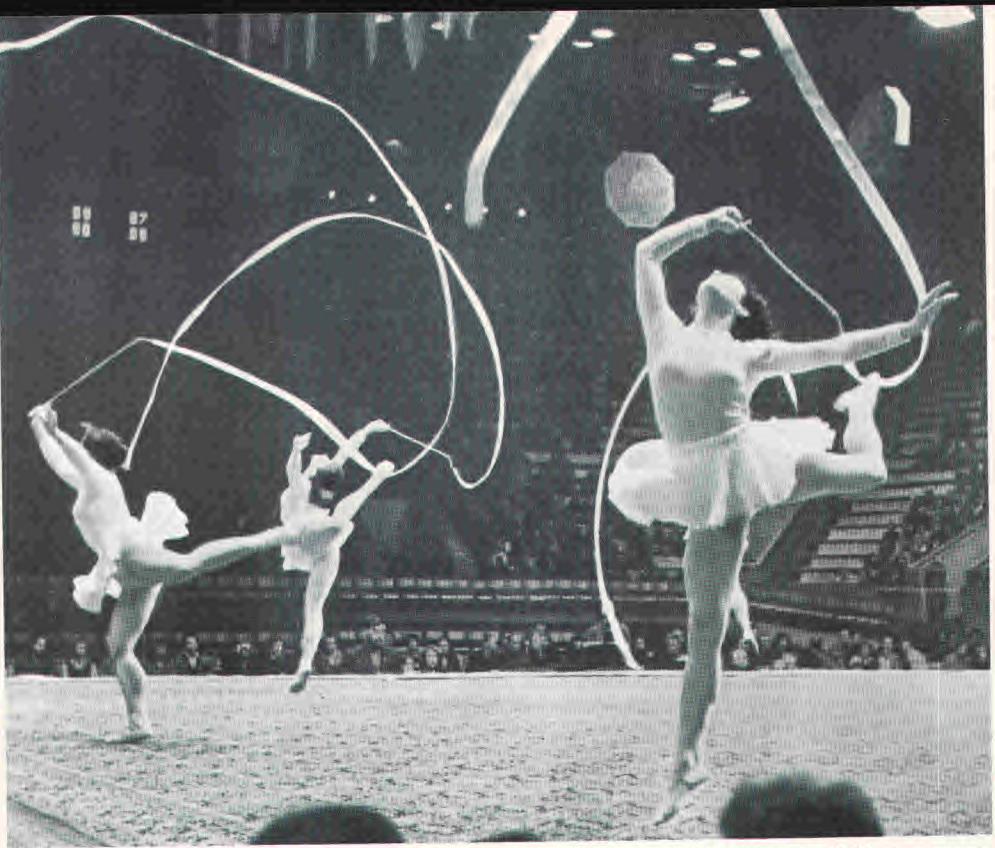
The Moslems have the acute problem of the dying-out of their *imams* or religious leaders. An American Protestant who found and visited a school for *imams* in Bokhara reported that there were only twenty-two students enrolled in the 7-year course. They were housed in a 17th-century building which might have come out of the Arabian Nights. Twenty-two *imams* for a growing Moslem population of 22 million might be compared with the print quota of 50,000 Bibles for a Christian population of 30 million.

The problems of the Jews stem from the intolerance of the State. Whatever little tolerance there is for the two predominating faiths, none is extended to the Jewish faith. Soon after World War II, an Israeli legation was opened in Moscow. Thousands of Jews requested visas to emigrate to Israel. The Communists considered this to be treason to the Soviet Union. Thus they did not allow this group, which,

The magic of a winter's day in Moscow turns the branches framing a tower of the Kremlin into frosty jewels.







A graceful troupe of female gymnasts performs an "athletic ballet" at a sports exhibition in Moscow. Soviet women have become renowned throughout the world for their abilities in various sports. They have won particular acclaim for their successes in the international Olympic games.

Young students in a Moscow coffee house pore over the latest fashions in a popular magazine. The recent emphasis on the production of consumer goods has allowed Soviet women the long-denied opportunity of "dressing up" in the manner of their fashion-conscious Western counterparts.



nevertheless, they considered untrustworthy, to leave the country. Jewish people occasionally got letters or parcels from abroad. Although many were eager to give up these contacts that endangered their safety, they were still accused, especially during Stalin's last years, of being engaged in an "international conspiracy."

As time went on, the campaign against the Jews in the Soviet Union gained momentum. Fewer and fewer synagogues remained open, and hoodlums were tacitly permitted to stone those that did. The baking of *matzoh* (the unleavened bread which the Jews eat during the Passover holiday) is no longer permitted in State bakeries. Prayer shawls and books became unavailable. Yiddish language theaters, newspapers and Jewish cultural centers were closed down.

The word "Jew" was stamped on passports of people of the Jewish faith. This situation has continued even to the present time.

A Brief History of Russian Religion

Tradition credits the official arrival of Christianity in Russia to the baptism of the Kievan Prince Vladimir and the conversion of his subjects in 988. However, Christianity actually had been introduced to Russia long before this.

In the fourth century several bishop's sees were established in South Russia within the girdle of Greek colonies surrounding the Black Sea from the Danube to the Caucasus. Although no known missionary work was done, conditions for the spread of the gospel became more favorable when Slavic tribes, after trading with Greece, adopted Christianity and moved within the borders of present day Russia.

Prince Vladimir's baptism followed more than a hundred years of intermittent missionary work. Even in his own state there was perhaps precedent for such a conversion, since Kiev's first two princes and Prince Vladimir's grandmother appear to have been Christian. However, it was not until Prince Vladimir's rule (973-1015) that Christianity was fully recognized and introduced to the other towns of Russia.

Russian paganism, without any social organization or mythological system, resisted only passively the new religion which the princes imposed. The Russians were scattered

over a vast territory and separated from each other by dense woods and large streams. Long, cold winters furthered this isolation. The new Christianity penetrated slowly and the old beliefs persisted. For centuries the Orthodox Church fought against pagan beliefs and rites, but the peasants hung on stubbornly, and eventually the Church assimilated them.

Nature worship, for example, was diffuse, and richly embedded in a tradition that culminated in the reverence of Mother Earth. Identification with all living things, particularly the bloom and death of a fruit or berry (especially the raspberry), characterized the Russian epics and lyrical songs. The earth was regarded as moist and fertile, and as the mother of all life it was important in its influence on Orthodox Christianity, which stressed the motherhood far above the virginity of Mary. The Russians, taking over the abstract, rational cosmology of the Byzantine church, imparted to it a new warmth and poignancy.

Reverence for the dead, which plays so important a part in the ritual of the Russian Orthodox Church, is a survival in new guise of the original Slavic ancestor worship. The spirits of the dead were feared and venerated. Children today preserve the memory of *chur* (the spirit of a deceased ancestor) in an exclamation they use in their games: *Chur menya* ("ancestor, protect me").

The seasons, too, so important for an agricultural people who had to endure long and severe winters, were attended with celebrations that survive in modified form to this day. The most carefully observed holidays became those which coincided with the key days in the pagan, country calendar.

THE INDEPENDENCE OF THE RUSSIAN CHURCH

In such an atmosphere, Christianity could not take on a completely alien appearance. It satisfied and mystified the Russians of the time, but there was a distance between the worship of the ritual forms and the appreciation of their content. It was inevitable that under such circumstances ritual would acquire exaggerated importance and, moreover, that it would often become peculiarly Russian in character.

The majority of the early leaders of the Russian church were Greek. But it was not long before the Rus-



A team of teenage rocket enthusiasts from Moscow display their homemade missiles at a "meet" outside of the city. Soviet youths are encouraged in such hobbies, which may lead to a professional future in space technology.

sian metropolitans (heads of ecclesiastical provinces), though chosen and consecrated at Constantinople, began to define their lot as independent. *Pechera Lavra*, the first Russian monastery, was founded at Kiev in 1051. It trained many abbots for other monasteries and bishops for the dioceses.

The monastery in Russia was of immense importance, both to monks and laymen. It provided a strict and ordered world where the spirit triumphed; where tales originated of the wondrous ascetic exploits of monks, of visions, miracles and supernatural help in the conflict with devils. This tremendous tendency toward monasticism was so great that at times it had to be curbed by the monasteries themselves. So numerous were those Russians desiring to enter a monastery, or at least don the habit before they died, that many had to be turned away.

The Mongol invasion of south Russia, begun in 1237, abruptly crushed this activity. *Pechera Lavra* was destroyed, the churches were devastated and the monks were scattered in all directions. Yet it developed that the Mongols, once they were established, did not per-

secute the Church. Many of the Khans became its protectors. Even in 1313, when the Mongols adopted Islam, their attitude to the Russian church became no more hostile. By this time south Russia and Kiev had fallen to the Lithuanian pagan prince. Moscow then gained primary status in Church affairs, and it was there that a translation of the New Testament from Greek to Slavic was first undertaken. The Church not only preserved, but increased as well, a sense of national identity during the long years of the Mongol yoke.

Yet the peaceful growth of the Church was often interrupted by political and theological controversies. Dissension with the Greeks on both counts increased, notably in the divergence of opinion over whether one should make the sign of the cross with two fingers, as the Russians maintained, or three. But the full split with the Greeks was the result of tension within the Russian Church itself.

In 1434 a synod of Russian bishops elected St. Jonas to occupy the metropolitan see of Russia, now at Moscow. But before Jonas arrived at Constantinople for his installation, a Greek named Isidor was given his

place. Isidor came to Moscow fresh from the Council of Florence (1438) and attempted to introduce the shaky union of Roman and Greek Christianity that had been decided there. His reception in Moscow was exceptionally hostile, and he was forced to flee to Rome. He retained title to the see at Moscow, however, and it was not until 1448 that a synod of Russian bishops re-elected Jonas from among their ranks.

This event was of great importance to the final split between the Greek and Russian Churches. Isidor, however, did not renounce his claim to the Russian Church; finally he secured the southwestern diocese. This divided the Russian Church into two provinces, Moscow and Kiev.

THE SCHISM

In the 17th century the Russian Church suffered a severe schism

which produced, among others, the movement of the "Old Believers" or, more accurately, "Believers in the old liturgy." When the liturgy and New Testament had been translated into Old Slavonic centuries earlier, some mistakes had been made which the copyists of the sacred texts had perpetuated. The Patriarch Nikon, then head of the Russian Church, corrected some errors, but he replaced many of the original ones with new ones. This created unforeseen turmoil among the people. Many refused to go along with him.

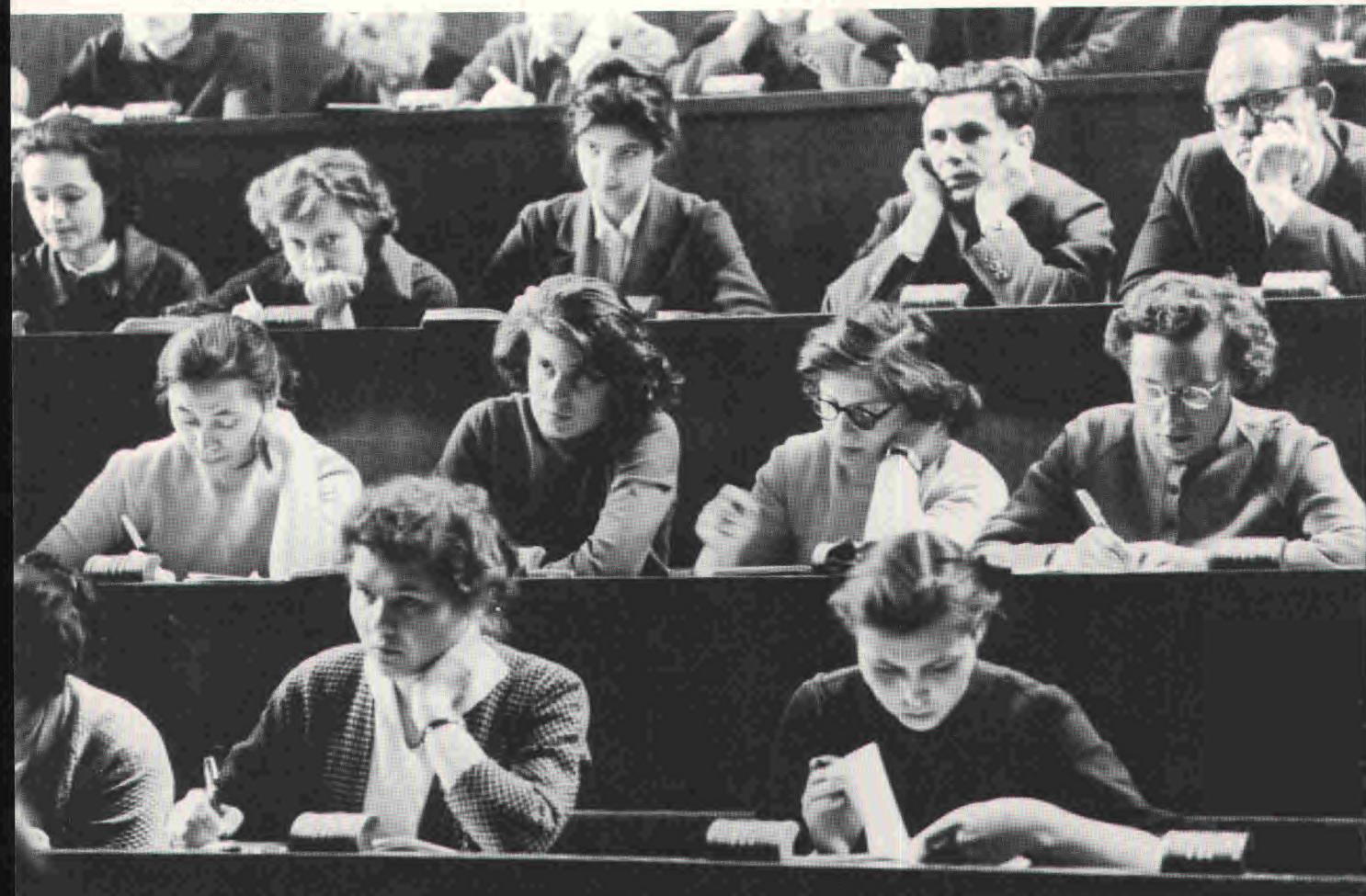
Sects of all kinds sprang up, some exceedingly eccentric. Adherents of one such sect went from village to village preaching purity, all dressed in white to look like angels. Another sect held that, since repentance of sins was required for salvation, sin itself had first to be committed and saw to it that there was plenty for

them to repent of. A third aspired to live a simple Christian life, sharing possessions and living in communities. Some emigrated to Canada. Recently a group of quaintly dressed Russians arrived in the United States. They were Old Believers whose relatives had left Russia for Turkey 300 years earlier. Countess Tolstoy, the daughter of the great novelist, arranged for their emigration. They have settled on a farm in New York, where they expect to continue practicing their old beliefs.

THE HOLY SYNOD

In 1721 Peter the Great changed the supreme authority of the Church, and for the rule of one man substituted that of a college or board. This was solemnly inaugurated under the name of the "Most Holy Governing Synod," and within two years it was recognized by all of Russia. This established the authority of the Sovereign as higher than that of the head of the Church, a reform that was met with great resentment.

Attentive students absorb a lecture at Moscow University. Soviet institutions of higher learning differ markedly from those in the West in that they do not offer a general or "liberal arts" education. All students must specialize in some profession. The preponderance of female students in this lecture hall emphasizes the fact that Soviet women realize that they will have to work even after they are married.



The clergy then was divided into two main groups. The white clergy were parish priests, and had to be married in order to receive a parish. The black clergy were monks who could not be married, and from their ranks the various monastic hierarchies were chosen. Church elders, whether monks or laymen were greatly venerated and pilgrims would travel great distances to seek their advice. One of these is the monk Zosima in Dostoyevsky's *The Brothers Karamazov*. The ordinary clergy, however, were spread throughout the land, often like very poor civil servants of religion. They lived from what they were able to obtain for baptisms, weddings, funerals and other rites, mostly from the overwhelmingly poor peasant population.

ICONS

Visitors to Russia have always been particularly struck by the extraordinary number of icons. Their profusion, together with the frequent practice of worshipping them out of doors in processions, made the towns and villages of Russia look like richly decorated pilgrimage sites. Even today it is not unusual to see icons in the houses of the peasants, who worship and treasure them as precious relics.

The art of painting icons was considered a sacred practice, for which the artists prepared by fasting and prayer. The Orthodox dogma forbade the naturalistic representation of the Divinity, and statues were thus prohibited.

Lamps and candles were continually burning in front of these icons. In order to prevent smoke from darkening these images, artists made metal covers which left only the faces exposed. As time went by, these covers became more and more ornate, bejeweled and, after a while, more important as an art form than the painted image underneath.

Some of these images were venerated as miraculous, and pilgrims swarmed from all over the country to worship them. Among the most famous was the Iberian Virgin. Decorated with pearls and diamonds, it was kept in the chapel of the same name at the Kremlin. This image was one of the foremost among many attractions that made Moscow a kind of mecca for the Russian Orthodox faith. Today, however, more pilgrims come to this same city to do homage to the tomb of the founder of the Soviet regime, Vladimir I. Lenin.



A children's playground in Moscow. Children begin their normal schooling at the age of seven and complete their compulsory education at fifteen or sixteen in most areas and at seventeen in the larger cities. In the early grades, emphasis is placed on discipline, the "three R's" and Communist ideology—the last of which is taught not by rote but by persuasion and indoctrination.

RITES OF SPRING AND EASTER

When the winter solstice approached and the days became longer, the Russians celebrated and engaged in ritual acts of remote religious origin. The privations of the winter would be over. The plow, an important symbol to them, would be able to till the thawing soil; the cattle would multiply, and fruits and harvests, abundance and warmth would come back to the earth. So Easter, the Resurrection of Christ, which coincided with the resurrection of the earth, became the most important feast of the year for the Orthodox Church.

It was celebrated in both towns and villages with great solemnity. The people congregated with intense expectation for the midnight mass, in churches without chairs or pews. At the symbolic moment of the Savior's Resurrection, the priest took the shroud from the sepulchre, hesitated, not seeing Christ in it, and

then in procession, went out of the church to seek Him. Finally he returned to announce the miracle to the congregation with the traditional exclamation: *Christos Voskresh* ("Christ is risen"). Then the congregation lighted candles and exchanged the ritual triple kiss while the mournful psalms gave way to joyous hymns and the bells of churches.

THE EASTER EGG

Easter eggs, beautifully decorated in many colors, play a special role in Russia. In the past, the nobility and the Imperial House exchanged carefully crafted gold and enameled eggs encrusted with precious stones. Many were signed by Fabergé, the famous goldsmith. A remarkable collection of them can be seen at the Kremlin Museum.

The egg was the symbol of life, of fertility, the circle that could never be broken. The people took eggs to the cemetery and rolled them among the tombs. Perhaps a

thousand years earlier the egg's mysterious vitality was intended to rub off on the dead and somehow bring them back to life. But in recent Christian times it became a rite of obscure significance, and the participants were no more aware of its meaning than children rolling eggs on the White House lawn are concerned with making the land more fertile or with improving the grass.

When the summer solstice arrived around the feasts of St. John and St. Peter, the passing of spring was observed. Boys and girls in their finest clothing danced and made merry. Toward sunset they went through the village, carrying flowers and singing. When the sun began to set, they knelt saying: "Farewell, lovely spring, farewell, come back soon." And spring gave way to work in the fields.

These traditions began to disappear in the 19th century. World War I and then the 1917 Revolution put an end to many of these customs. Today Russians look on



Midday crowds cross Moscow's Mayakovsky Square. In the background is the Tchaikovsky Concert Hall; five other theaters also front on the square. In all, there are more than thirty theaters in Moscow, the best known being the Bolshoi and the Moscow Arts Theater.

these traditions as relating to a remote past. Yet the present May Day celebration, meant as a homage to labor, contains many of the elements of the spring rites, such as gifts and acts of rejoicing. The May Day celebration is more important to Russia's people than either the anniversary of the October Revolution (Russia's Fourth of July) or New Year's Eve. The Soviets leaders, like the Church rulers before them, have had to accept the fact that this outburst of joy over the coming of spring was the supreme holiday of the year.

HOLIDAYS

MAY DAY

The great holiday of the year is May Day. It coincides with spring. Soviet citizens all over the country buy new clothes, if they can afford them, the way we do for Easter. Cities, towns and villages start frenzied preparations for the festivities. The streets are garlanded with red and gold wreaths, hammers and sickles and printed slogans prepared for the population by the Communist Party. These slogans are very important in that they reveal the position of the Soviet government on many issues. For some time peaceful co-

existence has been a favorite and oft-repeated slogan.

Pictures of the leaders are placed in the main streets and squares of all cities, towns and collective farms. In Moscow, the seat of the government, the celebration is by far the biggest. Portraits of the members of the Presidium, with Khrushchev's larger than the others and placed above them as Stalin's used to be before, adorn Red Square, the new 300-foot-wide Kutuzovsky Avenue, Gorky Street and all the big thoroughfares and parks. Foreign diplomats and correspondents closely observe the arrangement of what they call "iconography" for signs of changes in the standing of Soviet leaders according to the arrangements of their pictures in relation to Khrushchev's.

On the eve of the day, patriotic music is piped into amplifiers placed in the main streets and squares. Excitement is in the air.

On May Day the Communist Party bigwigs climb atop Lenin's tomb and inspect troops and parades. The floats and slogans and the performances of the athletic groups are a dazzling spectacle. Sport competitions, soccer matches and civic gatherings, stressing political questions, take place throughout the country. The weather is usually at its best at this time of the year. The first flowers are in abundance. People take off their coats after almost seven months. Optimism is universal. They stare at each other's clothes and take pride



Toys, hot cakes and soft drinks surround a mother and her young child enjoying an outdoor celebration in Moscow.

in the fact that shoes seem to look better this year. Ice cream vendors do a thriving business. In squares, here and there, stands are set up and typical regional dances are performed. Moscow gets the cream of the spectacles. People from all over town, and from out of town as well, stream toward Red Square, and pour along the banks of the Moskva River. In the villages amateur theatricals are staged in the clubs. Balalaikas and accordions add to the gaiety.

THE SOVIET 4TH OF JULY

The second most important holiday is November 7th, the Soviet 4th of July. At the time of the Revolution the date fell on October 17th by the old Russian calendar, which was abolished after the Revolution and changed to conform to that of the Western world. The weather is at its worst at this time of the year

and the temperature is often on the minus side of zero. The holiday usually falls on a bleak, grey, cold day. As on May Day, the portraits of the leaders are up again and the decorations are everywhere. Newspapers, radios and meetings all over the country explain and re-explain the significance of the celebration, and enumerate the achievements of the regime in a tireless but tiresome display of Soviet patriotism.

But the people seem more indifferent this time. The leaders mount to the top of Lenin's tomb; Soviet notables and foreign chiefs of mission await the beginning of the yearly parade. The show is as magnificent and as impressive as usual. The military might of the regime is displayed and foreign military attachés

take eager mental notes of the armaments. The Russian soldiers and officers, in splendid winter uniform, add to the drama. Sometimes there are fireworks in Red Square at night, but in general it is a quieter holiday than May Day.

CHRISTMAS AND NEW YEAR'S

Christmas, which for us is the main holiday of the year, is just another date in the Soviet calendar—a working day. On January 6, the day on which Christmas falls according to the old Russian calendar, people go to church in all parts of the Soviet Union. It is around this time of the year that the Soviet government finds it necessary to celebrate a combination of Christmas and New Year's to channel the

The exterior of a young workers' club at Kuybyshev, a city on the Volga. Such clubs are centers of social activities, sports and entertainment, and also serve to cultivate among local youth an enthusiasm for the Soviet system.





The city of Krasnodar, in the northern Caucasus not far from the Sea of Azov and the Black Sea, was founded in 1794 by a group of Cossacks under orders from Catherine the Great. The city, originally named Ekaterinodar in honor of the Empress, was renamed Krasnodar in 1920.

enthusiasm of this inevitable celebration. Big Christmas trees called *yolki* (native to Russia, incidentally) are mounted in the main squares of cities and villages. Shops sell decorations and charming miniature trees. Puss-in-Boots, the fox and other figures of the Russian fairy tale world entertain children at the Pioneer Palaces. Grandfather Frost is not driven by reindeer or dressed in red, but looks like a white-clad twin of our Santa Claus. He is accompanied by Sneguroshka, the snow maiden. Every year the House of the Moscow Trade Unions entertains Moscow children for several days around New Year's with one of the season's most magnificent spectacles, and each child is given a present at the entrance. The feast is called the New Year's Yolka celebration, but to the children a rose by any other name smells as sweet.

New Year's eve is a big celebration. Moscow hotels and restaurants fill to capacity. The menu is lavish in the bigger, plusher places, consisting of many courses. Balloons and whistles are distributed; there is dancing and popping of champagne corks.

NATIONAL DRESS

Until almost the end of the last century the clothes of the Russian peasant were made at home. The women spun and wove and embroidered during the winter. The men

made shoes out of tree bark; leather shoes were only for special occasions. They also made felt boots, the clumsy-looking *valenki*, famous for their warmth and still widely used today all over the country.

Trousers were worn tucked into the boots. The men wore shirts, buttoned on the side and generally decorated with artistic embroidery. They were worn outside and tied with a belt. The uniform of the modern Soviet soldier looks much the same. In winter the *mouzhiks* (peasants) covered their heads with fur hats of varying shapes, according to the region. Women wore long skirts, held by straps, and large-sleeved blouses underneath them. Married peasant women always wore kerchiefs over their heads as it was considered immodest for them to go bareheaded. Wealthy women wore the *kokoshnik*, an elaborate head-dress of regal appearance dating back to the 15th century. Girls traditionally went bareheaded until their marriage.

Because of the harsh climate, furs were of the greatest importance and the Russians were experts in the treatment of furs and leathers. They were used in all their splendor in the cities and the court. Today the majority of the rich furs are exported and sold to the West, mainly the United States, while most Russians wear nondescript furs, strictly for warmth.

Vestiges of the old forms of dress remain in certain clothes brought

from the cities. The *Ukrainka*, a mass-produced shirt very popular among Russians and other peoples of the U.S.S.R., is derived from the Ukrainian version of the old peasant shirt. There are other variations as well. The Russians in turn have adopted the *tyubetevka*, the gaily embroidered skullcap, typical of the Uzbeks, which is worn all over Central Asia.

DIFFERENCES IN DRESS

The U.S.S.R. is made up of nations differing as much in language, history and civilization as Sweden does from Albania—or more. As a result, the variety of national costumes is enormous. Modern life has affected traditional dress in different degrees, industrialization being the chief factor of change. The Kazakh shepherd, on becoming a workman, abandoned his long, flowing shirt for overalls; the Tadzhik woman gave up her veil on entering the university; the Georgian doctor or the employee of an oil company would no longer wear his wide trousers and the knife in his belt.

It is only in remote regions that people still wear national dress. It is displayed in greatest splendor on the stage or at gatherings of the different nationalities; on such festive occasions traditional dress enjoys a revival. Georgians and Armenians tuck their wide trousers, held by ornate metal belts, into their classic boots.

Some peoples have adopted both ways of dressing. Tatars, for example, dress like Russians in everyday life but lapse into traditional clothes on festive occasions. Women wear trousers and on holidays add little boots with upturned toes. Silver coins and bangles adorn their black braids. It is not unusual to see them in Moscow when congresses or youth festivals are in town. The Tatars lining up in Red Square to get a glimpse of Lenin are themselves a splendid sight in their national garb.

The Uzbeks, Kazakhs and Turkmen have all retained many elements of their old costumes in their daily life, but strongly mixed with modern dress. Women in the Islamic countries have rejected the veil, and the younger ones prefer the newer modes.

MODERN RUSSIAN DRESS

As the Soviets emerged from the penuries of World War II and into the relatively softer political climate

of Khrushchev's regime, with more concern for the production of consumer goods, they began losing some of that air of shabbiness for which they were known in the Twenties, Thirties and Forties. Today they go about their business in somewhat drab but functional Western dress.

In the summer, a very short but very warm spell, citizens walk about in their shirtsleeves, even in the large cities such as Moscow or Leningrad or Kiev, usually without a tie and often in sandals. In the Forties these shirts were ordinary shirts from which the tie was removed. Nowadays, however, Soviets are able to buy sport shirts very much like ours.

Their appearance is neat, with no Ivy League touches or Madison Avenue refinements. The look of the population in general is decidedly proletarian.

Women wear rather plain dresses of cotton or silk, usually in a printed fabric. The great majority of these dresses have been made at home. Russian women are larger-boned and stouter than their American counterparts. Visitors often remark that they need girdles, but Russians themselves would not agree; they like their girls that way and consider American women much too thin. Russian girls are usually pink-cheeked and healthy-looking with a great deal of the peasant in their

looks. But in spite of the different tastes in figures, everybody agrees that their faces are very pretty, with their Slavic oval and high cheekbones. Fashion being what it is, the sophisticated girls in Moscow who have been exposed to Western influence, such as models and actresses, for example, are beginning to look more and more like the pretty girls this side of the Iron Curtain. This also applies to Moscow's younger set. The traditional braids, though not altogether in retreat, are increasingly giving way to the beehive, or some other up-to-

A flood of light illuminates a nearly deserted section of the Kremlin during the quiet hours of evening.





On a warm summer afternoon a family relaxes along the shore of a small lake in Frunze, capital of the Kirghiz S.S.R. in Soviet Central Asia. Many Russians and their families have been resettled in Kirghizstan in recent years, and they now comprise about a third of the population. The original Kirghiz peoples of this mountainous region have shown a certain reluctance in accepting the Soviet system. In particular, attempts to bring Kirghiz women out of the home and into public life have met with stubborn resistance.

date hairdo. The Russian woman's capacity for adaptation is remarkable, as is her instinct for fashion.

HIGH FASHION IN RUSSIA

The Soviet government has established its own equivalent of New York's garment center and Paris' *haute couture*. Foreign visitors are surprised at the number of cocktail and evening dresses shown at Moscow's House of Fashion. Unlike United States' mass-production fashion, where a copy of a French model gets to the public within a few weeks and then is sold in all price ranges, Soviet *haute couture* is something between expensive custom dress-making and pie in the sky. Only the very wealthy can afford it and some items are shown only as a foretaste of things to come. The fashion show which Americans saw at the Coliseum in New York was of this type.

The Russians look best in the winter. They are comfortably dressed and well-protected against the rigors of the climate. Their coats, usually of a good, dark material, have fur collars. Dignitaries look splendid in ankle-length greatcoats and high

Persian lamb hats. The military look particularly dashing. A great majority still remain in *valenki* (felt boots) and quilts of nondescript color, but the improvement has been considerable.

Khrushchev himself described the situation very vividly at a Moscow election rally: "I understand, comrades, that everyone of you would probably like to have a better suit; but the clothes I see on you make me happy. The time will come when we shall not only make better suits...we shall have several each; we shall have tasteful clothes...and, as they say, just give us time. We shall have clothes for every occasion that arises in the life of a person...I can promise anything, of course. I can say: 'Next year you will all have three suits each.' Well, you won't even listen to me then. You will probably say: 'What is the matter with him, has he had one too many?'"

THE FAMILY

MARRIAGE CUSTOMS

Marriages used to be very important, elaborate affairs in the old

Russian village. A traditional pattern was followed, and when the parents of the bride agreed to the wedding a series of celebrations and preparations took place, culminating in as big and gay a party as the families could afford. The feast lasted for days. Finally bride and groom, having been protected from the evil eye by certain rites and having received gifts and tokens to insure their bliss and fertility, started their married life.

This custom came to an end with the Revolution. The civil war had brought about a situation of poverty and insecurity not conducive to merrymaking. The collectivization drive added to the ordeal. When things finally settled down, peasants slowly picked up where they had left off, though in a far simpler manner. Churches had been closed, clergymen imprisoned, believers ridiculed. Many never returned to the old ways.

Russian peasant weddings had been celebrated after the model of the weddings of the old Slavic princes. The names by which the protagonists were designated indicate this: the groom was called *knyaz* (prince), and the bride was the *knyaginya* (princess). Throughout the ceremony in church, pages held two jeweled crowns above the heads of the pair, and once the wedding rings and kiss had been exchanged, the priest offered the couple a jug of wine from

which they had to drink in turn three times. Then he tied their hands with a handkerchief and they had to walk three times around the altar. Immediately after the ceremony, while still in church, the godmother and a friend tied the bride's hair into two plaits, the style reserved for married women.

MARRIAGE BY BUREAUCRACY

During the first years of the Revolution any attempt at going back to the old patterns was definitely frowned upon. Only the very humble, those too innocent, too far from the big cities and factories, could be forgiven if, out of ignorance, they maintained their way of doing things. In the cities the procedure was no more glamorous than buying a postage stamp or paying one's taxes. Couples would stand in line in front of a dingy window at *Zags*, the civil registry office, where a tired clerk would finally stamp their signatures on the marriage papers and turn to the next pair. In the first years of the Revolution young people regarded this matter-of-factness as sophisticated and any show of sentimentality as counterrevolutionary. Today, much of this attitude persists, but reaction has set in.

The peasants, too, get married at *Zags*, but the families call on each other, the groom's mother agreeing with the bride's mother on how much should be spent for the wedding feast. There are celebrations following the wedding, with the couple dressed in their Sunday best. Church weddings also take place.

But in the great urban centers an acute sense of dissatisfaction has developed among young lovers with the bureaucratic coldness and ugliness of their present weddings. The state is trying to improve the situation by embellishing the rooms where these civil contracts are signed and by bringing in some of the elements which are felt to be most lacking, such as participation of family and friends, so as to give an air of importance to the proceedings. A bride is no longer frowned upon for desir-

ing to look and dress her best for such an occasion. Wedding Palaces have been added to the Pioneer and other palaces, decorated in the beloved style of the Soviets: plush curtains and crystal chandeliers.

The length of engagements depends on whether the couple has a place in which to live after the wedding. A girl who has a room of her own is a good catch. Many couples get married and continue to live separately until they find a room of their own, getting together on week ends.

With all these difficulties, with an entire family sometimes living in one room, it is surprising to see how strong family ties really are and how secure Soviet children seem to be.

CHILDREN

Russian children are literally kept within strict bounds from birth. Babies are tightly swaddled like a package, with arms and legs bound alongside the body, and only their pink faces showing. They look

amazingly comfortable and content and do not seem to miss their thumbs. Working mothers take them in the morning to well-staffed nurseries and pick them up after working hours. At home the children, living in close quarters, develop a knack for not being in the way. More aware of the rigors of life than American children, they have greater understanding of their parents' problems. It is revealing that the children who seem to be developing behavior problems are often those of the well-to-do officials.

Children wear uniforms to school. The girls, with their blond braids, high white collars and dark clothes, present a picture of charming severity which would appeal to our grandmothers but would appall the fashionable American teen-ager. They attend school on Saturdays and get more homework than American children. There is a running controversy over whether American children are being coddled and whether the Russians are better off with their more demanding standards.

This is no museum, but a typically elegant subway station in Moscow. When the subway system first began operation in 1935, a number of Soviet journalists criticized its excessively elaborate and "wasteful" construction. But it remains the pride of Muscovites, who delight in showing it off to tourists. Despite its ornate grandeur, the subway offers efficient and inexpensive transportation.





A post-World War II scene in Moscow shows a group of wooden shacks, since torn down, in the very shadow of the Ukraine Hotel. Such humble dwellings are still prevalent in many parts of Moscow and other cities, despite massive efforts to replace them. Within these barrack-like structures, thin partitions separate the cubicles allotted to each family. Kerosene burners and a few tables provide the dwellers with a communal kitchen at one end of the building. Lack of privacy remains a persistent complaint among the Soviet people.

be dispensed with altogether. Children born of free-love or common-law marriages were considered as legitimate as any others. Married couples could obtain a divorce simply by requesting it.

This freedom of the earlier days has given way to increasingly restricted customs and practices. Divorce is now granted only on certain "justified" grounds, which the court has the power to determine. Soviet citizens who seek to change partners simply because they desire to do so are held to be frivolous, and their petitions for divorce are denied. Every effort is being made to keep families together. The first step in divorce proceedings is an attempt at reconciliation, which is made in the lower courts. Society, in general, frowns on divorce in the Soviet Union.

THE MOSLEMS AND POLYGAMY

In the Moslem republics of the Soviet Union, polygamy was traditional, and parents arranged the marriages of their children. Today Soviet law forbids polygamy and it is very severe in cases of forced marriages. Customs of this kind, sanctioned by the Moslem religion, would have been most difficult to eradicate were it not for the enthusiastic and militant work of the newly emancipated Moslem women.

DEATH

Most peoples take death seriously and mark the passing of family members, friends or public figures with rites of some kind. In the past, the Russians indulged in numerous and complicated rites. For weeks after a death, the family congregated at *pominki* (mourning rites) and lamented the departed. Several times during the year the religious calendar marked further memorial rites. And a whole series of acts were performed to reassure the dead that they had not altogether left or been forgotten.

Russian children do not have many toys. Dogs are a rarity, especially in the city. Children have fun playing with each other, skiing and sleigh riding, making figures out of snow and ice skating. In summer they go fishing and swimming. They behave very much like our children did at the time of Tom Sawyer and Huckleberry Finn. The pleasures are simple, on the one hand, and highly sophisticated, on the other. Pioneer Palaces stage children's fairy tales lavishly and artistically.

Traditional Russian tales are available to children in charmingly illustrated books, as are translations of such favorites as Jack London's *The Call of the Wild*. The classics of Russian and world literature are the real best sellers. Western books by newer authors are carefully screened for political content. Children are also kept amply supplied

with books of patriotic-Marxist themes.

Comics and violent television programs are conspicuously absent from their lives. Soviet children do not hum commercials; the country's ninety-four television stations do not transmit any. Roughly 10 per cent of program time is dedicated to children. The rest is taken up with films (40 per cent), music (20 per cent), theater (12 per cent), sports (10 per cent), news, science and other educational matter. As in other countries, Soviet families are becoming increasingly addicted to television. They now own more than five million sets, and ownership is increasing by leaps and bounds.

DIVORCE

In the early years of the Soviet Revolution, marriage formalities were held to a minimum and could even

Today, when a Soviet citizen dies, his friends and relatives gather at a wake, reviving memories of him. The old complicated death rituals have been abandoned by the more educated and up-to-date sector of the population, together with the religious services that accompanied them. The majority of the peasants still observe many of the traditions connected with death, but many now bypass the Church.

An interesting example of a Russian burial was that of Boris Pasternak, the Soviet poet who fell out of favor with the regime after he was awarded the Nobel Prize for literature. During the wake Pasternak's friends and admirers filled the house. His close friend, the famous pianist S. T. Richter, played mournful music. The author was taken to the cemetery in an open coffin, carried by pallbearers. There the

coffin was closed and he was lowered into the earth.

The most extraordinary example of the Soviet cult of the dead can be seen in Moscow's Red Square, where Lenin's waxy-looking corpse lies for all to see in its glass casket. Westerners are shocked by the idea that every few months the embalmed body is removed and treated with chemicals to insure its preservation. They shudder at the sight of the dead. But Russians are familiar with it. There is no morbid curiosity in the tribute they pay Lenin. Frequently, in villages, a small group can be seen heading toward the cemetery, carrying their dead exposed to public view. Women throw themselves at the dead and kiss him, asking his blessing or giving him theirs as one

fellow being to another, with a deep human fraternity, typically Russian.

FOLKWAYS

THE VITALITY AND ENDURANCE OF the Russians led them to sublimate their troubles and raise their spirits with song and dance, laughter and romance. Out of this richness was created a folklore which in turn has been a marvelous means of expressing what is referred to as the complicated "Russian soul."

The talent for song and harmony is so highly developed that often a working gang of soldiers or laborers gives the impression of a professional ensemble. The Russian Orthodox

With a basket slung over her arm, a roving flower-seller makes her way through the crowd during a festival in the streets of Moscow. In the background a balloon-man and a soft-drink vendor offer their wares.





An ornate 19th-century yarn spinner from the region of the Northern Dvina in northern European Russia. The folk arts are still encouraged in the Soviet Union, and carved items such as this continue to be produced in the old decorative tradition.

flected in their songs. Sadness alternates with sudden outbursts of joy, as if the singer had pulled himself together, let his courage and vitality take over, and was defying the somber melancholy which afflicted him. Some songs dwell on plaintive emotions. Others, like the frenzied *kamarinskaya*, are a riot of gay exuberance. Many of these songs that burst into exultation are sung as accompaniment to dances, such as the dizzying *trepak* or the Ukrainian *hopak*.

Brief History of Folk Songs

The first songs were the *bylini* (old songs). Their origins are lost in antiquity. They had been considered extinct as a live art form until a scientific expedition in 1927 discovered that they were still sung by some fishermen of Lakes Ladoga and Onega in the far North. The *bylini* were epic songs, dealing with the feats of warriors or with larger-than-life heroes, such as Ilya Muromec, a son of peasants who emerged as the defender of the Russian land. The *bylini* were intoned, or recited, rather than sung.

Later songs dealt with historical events. They are distinguished from the *bylini* by their comparative brevity and their historically identifiable content. They celebrated the victories against the Tatars, the exploits of Ivan the Terrible or the insurrections of Stenka Razin and Pugachev.

The great religious involvement and the many religious sects created a wealth of poems and songs inspired by the lives of the saints and points of doctrine. Those of the Old Believers were sarcastic. Other somber sects were deeply mystical. The spring rites and midsummer celebrations, carnivals and the *ovsen* (the Russian Halloween) had their own special songs, the texts of which have been preserved and now make an interesting collection for the sociologist. Gorky was moved by the funeral lamentations which were sung by professionals at wakes and *pominki*, the gatherings at which the family mourned the dead.

Church is another training ground for collective singing. A great part of the beauty of Orthodox services is the extraordinary harmony of the voices of the worshipers, who are deeply immersed in worship and prayer but artistically aware of the sound they are creating.

Perhaps the only other people who could be compared to the Russians in this respect are the American Negroes, who have made similar use of song.

Russians burst easily into song and dance. They also cry and laugh easily. These sudden mood changes, so typical of the Russians, are re-

Popular Songs

The majority of Russian folk songs reflect peasant life, but many sprang from other segments of the population. The well-known *Song of the Volga Boatmen* is one of many about the men who pulled the lighters along the Volga River. There are songs of brigands and workmen, of exiles in Siberia, of fishermen and many others. This legacy has been supplemented by the songs of the civil war and the establishment of Communism.

Other songs have an aristocratic origin, such as ballads and songs fashionable in the 19th century. They filtered down to the masses along with gypsy songs and the hits of the time in Moscow cabarets. Poems of Pushkin and Lermontov became very popular. Those which are still sung today include "For a Sad Evening in Autumn," "Old Husband, Bad Husband," "The Prisoner" and "The Talisman." Others are "The Troika," by Nekrasov; "Ask Not, Seek Not to Know," by Alexei Tolstoy; and "The Troika Runs Wild," by Glinka. Works of contemporary poets like Esenin, Bagritsky and Isakovsky are being set to popular music.

The Revolution, the civil war, the five year plans and World War II also produced their songs. Especially popular were such songs as "Dubinushka" (The Cudgel), the "Varshavyanka" and the funeral march "You Have Fallen in the Fatal Struggle." At a recent gathering of Soviet intellectuals, Nikita Khrushchev reminded them of these songs, which he held up as an example to combat jazz that was creeping in. He mentioned "The March of Budenny" (a Soviet Marshal and war hero), as a favorite. This song and others, such as "The Young Guard," "Veselye Rebyata" (Gay Boys) and "Kalinka," are still very popular. During World War II and in the late Forties, Soviet youth danced to the rhythm of a catchy tune whose refrain went: *First we build, / First we build airplanes. / And what about girls? / The girls come later.*

This variation of the girl-meets-tractor school should not mislead us. Although it has been kept well under control in other fields of artistic expression, love has not been kept out of songs, and the usual song today sings of the charms or cruelty of the beloved.

The city of Moscow has unlimited glamor for the Russians and is a



Carved geometric designs decorate a set of round wooden boxes. Russian handiwork is also seen in children's toys. Especially well known are the matreshki, small, delicately carved wooden dolls.

frequent source of inspiration. A most popular song is "Under the Skies of Moscow Suburbs." It is played as a goodnight song at night-club restaurants.

THE CHASTUSHKA

More in the traditional vein is the *chastushka*, a song form which became popular in Russia in the 19th century and has spread to the rest of the Soviet Union. It consists of improvised rhymed quatrains in which the words are closely related to current events, public or personal. The *chastushka* is usually humorous and sharp, and it enjoys great popularity in both city and countryside. Today it is more widespread than any other kind of traditional song. In many parts of Russia the *chastushki*, which are almost always sung to the accompaniment of an accordion, are being associated with dances of the region.

The Dance

The dances of the Soviet Union, like its songs, have great vitality. But unlike the songs, they are joyful. During great celebrations people dance in the streets, girls often taking girls as their partners and, not infrequently, dancing alone. A foreign diplomat, watching a gymnastics exhibition in a Moscow stadium, remarked after seeing the younger people sing and dance, that he now understood where the Bolshoi and the

other great dance companies got their raw material.

POPULAR DANCES

The most typical of the popular dances is the *trepak*, a very old dance executed with great élan. In the Ukraine the national dance of this type is the *hopak*, once performed only by men but now also by women. In dancing it, men take tremendous leaps. Women use very fast and light movements.

In the villages, as in the towns, wherever young people gather to celebrate, it is common to see the *pereplyas*, one of the most popular dances. The *pereplyas*, which takes its name from the verb *pereplyasat* (to dance longer and better than others), is danced by five persons who try to outdo each other in the

execution and invention of movements. The dance begins with a slow rhythm, which gradually becomes stormier to the melody of a popular tune played on the accordion. The dancers, who wear the national costume of embroidered shirt (*kosovorotka*) and black trousers tucked into their boots, form themselves into two couples holding their hands on their hips, with the fifth dancer between them. They then move forward, heads challengingly, and, flinging their arms open, stamp their feet to the rhythm of the music. At a given moment one of the dancers executes a leap in the air, then, making a half-turn, he raises his right leg and lands on his left. This is the signal for the challenge. Another dancer throws himself forward with his arms folded, and a third answers him by executing the same movement, turning in the process.

The dance comes to life in a series of mutual challenges, each dancer trying to outdo the other in sheer fantasy and agility. One minute they are throwing themselves on their knees, flinging their legs forward, and the next they move about stamping their feet with incredible rapidity and rhythm. At the end, all the dancers form a row for the last routine, in which they jump in the air, clicking their heels and slapping their knees with the palms of their hands.



Elaborately carved flower and animal motifs bring a touch of Old Russian grandeur to the otherwise plain front of an izba, or rural wooden home.

The lid of a carved and painted wooden box depicts three musicians playing the gusli, an ancient stringed instrument somewhat resembling the zither. Made of white maple or sycamore wood, the gusli has a distinctively bright and piercing tone. It is still often used in folk-music ensembles.

The *pereplyas* has endless variations and is a favorite excuse for showing off, especially in front of girls. It is a firm rule that women should be graceful and elegant in their dancing so as to give an almost haughty picture of themselves. The masculine role is by contrast dynamic, lively and aggressive, based on jumps, the clicking of heels and *pripadanie*—wildness and dash.

These different attitudes are also seen in the *balalaika* dance. The girl comes forward as if to listen more closely to a song. Then she discovers a young man is following her. He stops singing and rests his *balalaika* on his shoulder. She pretends to want to escape his advances, which become more pressing. The girl flirts to the rhythm of the music, seeming vexed and surprised, until she suddenly gives the young man a handkerchief, bowing her head as acknowledgment that his insistence has won her and that she is ready to accept his invitation to dance. The young man then takes his *balalaika* again and begins playing the theme of a *kamarinskaya*, one of the gayest, most unbridled and fearless pieces of popular music. The girl dances while he moves around her, still playing, until they are dancing together, to a rhythm that grows faster and faster every moment, until



in the end it is frantic and breathless.

The *khorovody* are gyrating dances which can be fast or slow. In the spring and summer, and during holidays and popular excursions, the graceful and harmonious coiling and uncoiling of the *khorovody* can frequently be seen, performed to the music of singing voices. These dances were once limited to the towns, particularly Moscow, but today they are known all over the country, and there are amateur dance groups that practice all the frankly popular and traditional dances. The *khorovod* consists of several intricate themes which involve precise timing and coordination on the part of many dancers, often more than thirty boys and girls. Some magnificent examples of the coordination could be seen in

the United States during a tour by the all-girl Berioshka group.

A full summary of popular dances, Russian and Ukrainian, would have to include many variations of these routines, which are found all over the country under different names, with different musical accompaniment, songs, movements and steps, although they all share common elements.

The dances of the Caucasus and Central Asia are rather different and often of great beauty and originality. The *lezhinka*, for example, the popular dance of the *Lesghi*, which is found all over the Caucasus with local variations, is known throughout the country. Accompanied by a clear, energetic tune and a quick, sometimes wild rhythm, it is a show-piece of skill, agility, daring and endurance. It is performed with daggers, like the Armenian sword-dance.

The greatest expression of the dance is, of course, to be found in the Bolshoi and the Kirov theaters, which maintain their own ballet schools. The other republics also have their own ballet companies. The folk dances are the breeding ground and fountainhead where these companies get their sap and nourish their roots.

Gifted children all over the Soviet Union are given periodic auditions. Schools cultivate folk dancing assid-



A box of walrus-tusk ivory, from the Archangel region of northern European Russia. The craftsmen of this region have been renowned for their ivory work since medieval times.

uously, each republic stressing its own. Schools organize national competitions and the best dancers are sent to Moscow, for example, to some gathering of nationalities or artistic tournament. By the time a dancer reaches the best schools and companies, he has gone through a filtering process in which hundreds of thousands have been eliminated.

Rudolf Nureyev, the young Soviet dancer who made such an impression on American audiences when he made his debut at the Metropolitan Opera House, gives a detailed account of this process in his autobiography. A child of very poor parents, he distinguished himself in folk dancing at school. He was selected with other talented children to dance for wounded soldiers and to go on tours of the Republic of Bashkir, his homeland. When he joined the Pioneers, at the age of ten, his dancing teacher was impressed and encouraged him to take lessons which were given him by a retired ballerina. This woman and his teacher helped him apply for a scholarship in Leningrad. Nureyev earned the money for his fare by teaching folk dancing to worker organizations. He won the scholarship, which included board and lodging.

The folklore dances not only developed the abilities of young Soviets but they also gave rise to special companies of extreme refinement and quality. The Moiseyev group and the Berioshka are world-famous. They exploit the vitality and great zest of the Russian dance as well as the sweet charm of peasant life and the beauty of peasant traditional dress. Many consider the Moiseyev group the best product of Russian dancing, not excluding the ballet. The all-girl Berioshka company has another character. The *khorovody*, the winding dances, done with a precision and timing that seem effortless, as if the girls were not moving but were being moved on invisible wheels, invariably stop the show.

Musical Instruments

Russian songs and dances are unthinkable without the musical instruments that accompany them, some of them originating in ancient times.

The *balalaika* is well known all over the world and we associate its name with sad, fitfully wild Russian songs. It is the instrument which is best loved by the Russian people and is used widely. The *balalaika* has a triangular form, flat on top,

with a rounded sound box. It first made its appearance in the 18th century, in the regions of Olonec, St. Petersburg, Tver, Ufa and Samara. From there it spread all over Russia. The ancient *balalaika* had only two strings, but the modern one has three, running down a long neck. Only the first and third strings are played. The middle one is left to echo the vibrations.

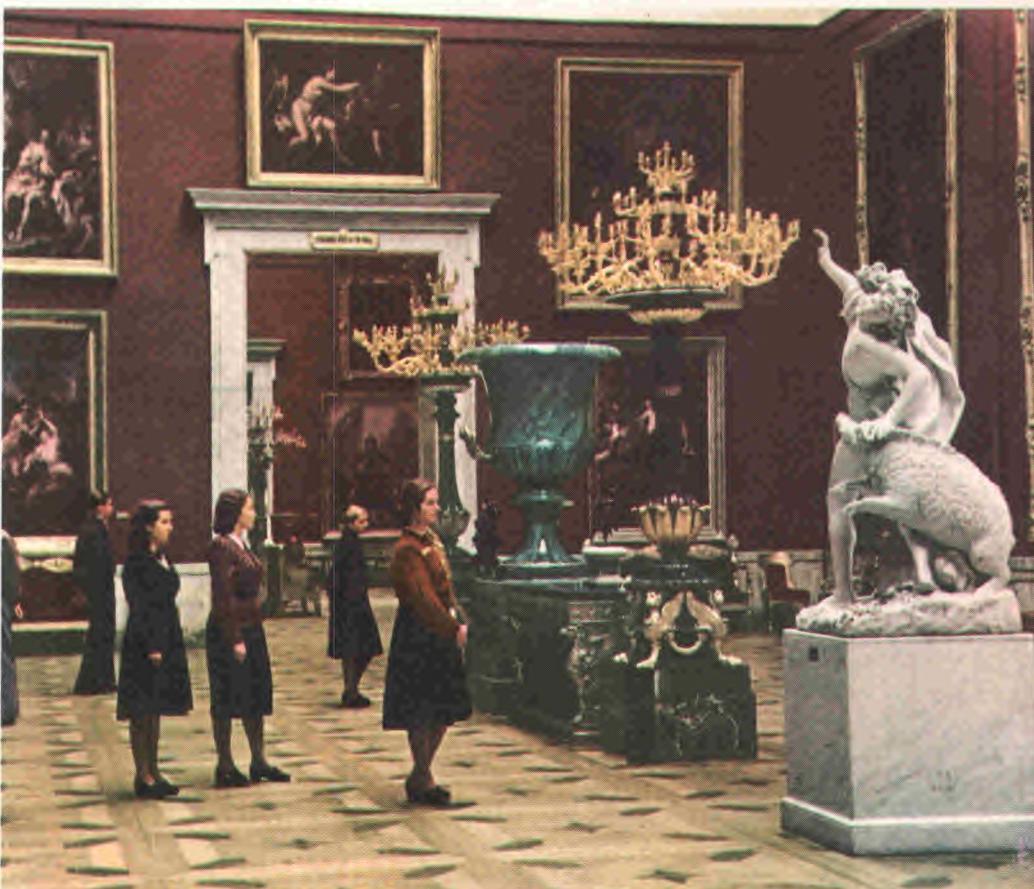
Still older than the *balalaika* is the *gusli*, of which there is evidence in the traditional songs as well as in the miniatures and frescoes of the 16th century. This is the most complicated of the Russian musical instruments, a kind of zither. It looks like a large, flat box made of white maple or sycamore wood, on which there are seven strings. It is played like the *balalaika* and has a very distinctive tone, bright and piercing. It is often found in local orchestras.

Among the wind instruments, various kinds of pan pipes are wide-

spread in Russia, as in other republics of the Soviet Union: the *kugikl*, which has five reeds; the *dudka*, which has only one; and the *pyzatka*. The *volynka*, common above all in Belorussia but known also in the Russian regions of Smolensk and Kalinin, is a kind of fife. There is the horn, once made of bone but now a trumpet of wood, called *rozok*.

In certain places, especially in Kursk, one of the most musical regions of Russia, there still exists a violin with three strings called the *skripka*, which is played at weddings and at popular dances. In the Ukraine and Belorussia strolling players and blind players still use the so-called *kolesnaya lira*, an instrument that in size and form recalls the viola and has a strong, sharp sound with a slightly nasal resonance.

Common in the Ukraine and in Russia is the *luben*, a sort of tambourine which is rather like a



Interior of the Hermitage, one of the world's greatest art museums, in Leningrad. An architectural complex of four 18th-century tsarist palaces, the Hermitage contains an unsurpassed collection of art treasures. In one room alone there are twenty-seven Rembrandts—the largest collection outside of the Netherlands. The Winter Palace, largest of the museum's four buildings, contains more than a thousand rooms and has over one hundred separate staircases.



harness-bell or certain handbells. This is often used for popular dances. Together with the *balalaika*, the accordion and a number of other instruments, it accompanies the gay, wild songs. Virtuosos throw it in the air and catch it again, and beat it on their knees and heads, even on their chins and noses, then drum it with their fingers at extraordinary speed so that it produces a fantastic wavering trickle of sound.

Although not Russian in origin, the accordion has become traditional all over the countryside. It came in after the Napoleonic invasion in the last century and is now very popular. In the villages and among youths, at parties and dances, it usually accom-

panies songs. The harmonica or mouth organ is also popular.

TALES

During the long winter nights, the Russians wove legends and fables which were handed down orally from generation to generation. Although fast disappearing, this storytelling tradition is preserved in some areas of the North. These stories played an important part in the life of the illiterate population, and attempts by the Church to forbid them were unsuccessful.

A large number of popular tales grew over the centuries. Some are very realistic and reflect life as it

was at the time. Others are of a magic and fantastic character. Some verge on surrealism.

Often, as can well be understood, the *mouzhik* (the peasant) is the hero, sometimes in the guise of the *durak* (the simpleton), who gets the best of it in the end. The miller and the soldier are also heroes, reflecting the dignity of the small man vis-à-vis the powerful. Stories, some very profane, abound about the priest and his wife. Gogol used some of them. The long military service, which lasted 25 years, inspired many tales dealing with adventures in the army and with the return of those who, when discharged, had to cross the whole of Russia to get to their homes.

Left: Women—and a few men—crowd a church in the holy city of Zagorsk near Moscow, to attend Easter services. Easter is the most important day of the year for the Orthodox Church, and is celebrated with great solemnity in towns and villages. At one point in the dramatic midnight mass the priest proclaims the miracle of the Resurrection with the traditional exclamation: "Christos voskresh!" (Christ is risen!), to which the congregation replies in unison: "Vo istino voskresh!" (He is risen indeed!).

Tales of magic and fantasy constituted an artistic treasure trove on which Pushkin drew for his *Tsar Saltan* and which also inspired Gogol and other great 19th-century writers. Tsars and princesses, girls with golden tresses and Ivan the tsarevitch, the king's son, are frequent heroes. A beloved character is Koniok-Gorbunok, the little hunch-backed pony, which American children have been able to see on a TV serialization of the Soviet animated film.

Animal stories, though not uncommon, are less widespread than in the West. The animal tales are a narrative-dramatic type of story; they are told with abundant gestures, mimicry and songs.

THE POPULAR THEATER

The life of the Russians, rich in rites and symbolism, in song and dance, provided fertile ground for the natural development of drama. The popular theater was born at family ceremonies, weddings and funerals and wherever stories were told. The religious element, so important in the early drama of other European countries, penetrated much later, toward the end of the Middle Ages, from Catholic Poland into the Ukraine and from there into Russia. The Russian Church, always feeling threatened by the powerful pagan folklore, was not ready to absorb this drama and fought it by persecuting the clowns, who were the players of the time.

Puppet theaters were very popular at fairs. They evolved into what was called live puppet theater, in which actors spoke the lines. The standard characters were the *Mouzhik*, the Soldier, the Gypsy, the

Pole, the Jew and the Cossack. From this type of drama there developed farces which enjoyed enormous success. One of the most popular heroes was Petrushka, a kind of Pierrot, whose adventures, however, were typically Russian. They were played in hundreds of versions, all sentimental, satirical and comic. With such a tradition, it is not surprising that the Russians of today excel on the stage and have developed some of the best puppet theaters in the world.

Puppets can be bought in Soviet stores. They are charmingly made, like the Russian dolls for which Russians have an enormous flair, and Americans often bring them home as souvenirs. Pioneer Palaces and day nurseries always have puppet shows. But the brightest bloom on this deep-rooted tree is the Puppet Theater in Moscow directed by Sergei

Obratsov. Its repertoire draws heavily on Russian folklore with humor and a superb delicacy of touch.

PROVERBS

When Nikita Khrushchev visited the United States his translators were continually trying to render some Russian proverb into a suitable English equivalent. Asked why he objected to American proposals for disarmament controls and inspection, he answered that he doubted the wisdom of leaving "the goat in charge of the cabbage patch."

At a recent rally in the Soviet Union dealing with industrial problems, he said that reduction of costs should not result in deterioration of the product; otherwise, "a kopek saved was a ruble lost." Further on in the same speech, criticizing a new Soviet film, he said the producers responsible for it should re-

Right: A Russian Orthodox priest blesses Easter cakes on the premises of a church in Moscow. The sales of cakes and other items provide much-needed money for the financially-hard-pressed Church.





An elderly Muscovite leaves the steps of Moscow's only synagogue. The Jewish people of the Soviet Union have been the victims of frequent revivals of anti-Semitism—a carryback to tsarist times. Despite the fact that the Soviet constitution "guarantees" equal status to all religions, the Communist hierarchy has repeatedly singled out the Jews as a target for harsh repressive measures. Although outright persecution has become rare, systematic discrimination still prevails.

member the Ukrainian saying: "Chew the matter over." If they thought the type of young people depicted in the movie was the salt of the earth, as they apparently did, "Let them chew the 'salt' over and maybe they will understand what it tastes like," he concluded to cheers from the audience.

Khrushchev uses proverbs and colorful sayings all the time, and so do his countrymen. The Russians have a great sense of drama and an immense stock of proverbs to lend bounce and spice to their daily speech. Russian literature also abounds in them.

The proverbs reflect the ups and downs of the country, the idiosyncrasies of the Russian people, the wisdom, cynicism and patience of the peasants, the traces left in the country's collective memory by major historical upheavals of the past. "An unwanted guest is worse than a Tatar" or "As empty as if Mamai had passed" recalls that Russia for

centuries was a vassal of the Tatar Khans. The saying, "Against the Frenchman the pitchfork is a gun," reflects the pride the Russians took in defeating the Napoleonic invasion of 1812.

Other sayings are soaked in the bitterness of a society that was hatching violent revolution: "God is on high and the tsar far away..."; "The hand that takes never tires of its work"; "The horse loves oats; the earth, manure; and the official, bribes." The peasant's discontent is expressed in such rhymed complaints as "Bread and kvass (a drink made of grain) is all we have at home," or "No one knows what the poor man eats." His earthy capacity to survive appear in: "Better bread and water than cake and trouble." "If you're a rooster, crow. If you're a hen shut up and lay eggs." His feeling of humiliation is evident in: "If you eat cherries with lords, they will spit the stones at you." His wisdom advises: "Trust in God but

take care of your garden."

Many proverbs dealt with the priests in the mood of "Birth, baptism, banns and burial have one thing in common—the outstretched hand of the priest." But the Church is now supported by a core of truly religious people and engaged in a struggle for survival; these proverbs are not relevant today. Neither are those dealing with the titled class, such as "Noblemen make promises, and peasants have to keep them." The revolution did away with titles and liquidated the ruling upper crust.

Today's citizen may no longer have reasons to complain about the priest or the nobleman, but the proverbs come very handy to express other frustrations of more recent vintage. Although officially no buying and selling between private individuals is allowed, the peasant free market, where country people sell the produce of their private plots, sees a lot of active bargaining and not only concerning farm products. Fountain pens, watches, nylons, fur coats cautiously change hands. The recommendation "Don't sell without praising and don't buy without belittling" is as valid as ever.

The tsars' judges and officials are gone. The immense bureaucracy now weighing upon the Soviet people as a result of a system in which every activity is controlled by government has replaced them as the butt of proverbs, such as "Officials eat hot food, the people eat cold." For years the Soviet government has made the sale of farm products to the state compulsory. Sometimes little has been left behind. There have been difficult times at the farm when the poor *kolkhoznik* could murmur like his counterpart of yesteryear: "It isn't the horse; it is the oats that pull the wagon."

And the caution recommended in the old saying "An ox gets caught by the horns and a man by the tongue" or "The road to Siberia is wide; the way back is narrow" is instinctively practiced by everyone.

THE RICH FOLKLORE OF THE NATIONALITIES

While the Ukrainians and the Belorussians, who belong to the Slavic community, have a folklore

Elderly women relax on a bench in front of an entrance to the monastery at Zagorsk. The gaily colored exterior exemplifies the grandeur of the old buildings of the Russian Orthodox Church.





An interior view of the GUM department store in Moscow. Beneath the rounded glass roof a narrow bridge joins the two main arcades and allows shoppers to avoid the congested central gallery below.

recited poems from the 16th century, while also celebrating the Turkmen-Siberian Railway.

Among the peoples of the East, oral poetry always went with popular music. It was accompanied by different but similar instruments, varying from one country to another. The songs are often dramatized by dance and pantomime. In this sphere the Tadzhiks are particularly endowed, being masters also of puppetry and popular drama.

As the Orthodox Church tried to eradicate remnants of the pagan past, so did the Soviet government combat the glorification of feudal heroes, fearing that this kind of poetic expression would encourage nationalism and hinder the development of a Marxist outlook. Modern writers who sought their inspiration in these legendary heroes were severely rebuked. At meetings of the Soviet Writers Union, they had to repent and promise to correct their ideological errors. Their heroes had to be put into proper perspective in the light of Marxist-Leninist analysis, which would reveal their feudal backwardness. The offensive works would be banned. This contrasted with the Russians' emphasis on and resurrection of their own past from which Ivan the Terrible, among others, emerged as a progressive figure of his time.

In January 1963, a spokesman of the Communist Party, speaking of the nationalities, blamed Stalin for the unsatisfactory relationship between the central government and the ex-colonies. Quoting Lenin he said, "It is important that we should not give impetus to independence mongers, that we should not destroy their independence but should build...a federation of equal republics." The policy of Stalin, according to the spokesman, had played into the hands of nationalists.

Although the death of Stalin proved to have been a boon even to the dead heroes, since the ruthless grip on the nationalities has been loosened and a certain degree of self-respect has been granted, intellectuals of the Mongolian Republic were severely criticized recently for glorifying the past. Moscow evidently did not care to have Mongolians cul-

similar to that of the Russians, those of other ethnic groups differ greatly. Many of these peoples, having entered modern civilization only after the Soviet Revolution, have retained not only medieval ways of life but also popular artistic forms which have been dead in the West for centuries.

The Asiatic peoples have main-

tained their folklore despite the great changes brought by the Revolution. The old troubadors of our Middle Ages are alive today in such places as Daghestan, Kazakhstan and Uzbekistan. Today they add the praises of Soviet technical feats to their traditional themes. Until recently Gumbul Gabaev of Kazakhstan

tivate a history which is closer to China than to Russia.

The Tatars can boast of having ruled most of the civilized world at the time when Marco Polo astounded the Venetians with his tales about the magnificence of the court of Kublai Khan. Genghis Khan and other Khans have not been welcomed as heroes in Moscow.

HEROES OF TODAY

The Russian people are vehement in their feelings. In pre-Revolutionary days they venerated the Little Father Tsar. With the advent of the Revolution Lenin became the central figure, and he is today the highest deity in the Soviet Olympus. Thirty years after his death, he lies in his tomb in Red Square, embalmed under glass. Generations have filed by his bier to pay him homage. His face adorns banners and coins and on holidays presides over the most important proceedings. People feel warmth, admiration and love for him. He is the founder of the regime and the depository of all wisdom. He is to the Soviets what George Washington, Abraham Lincoln and other American heroes, combined, are to the United States.

While Stalin ruled Russia he was venerated as a god, and he was feared as if he had the power of eternal damnation in his hands. Artists painted him on canvas and decorated candy boxes, cigarette cases and modern china with his image.

Stalin held himself aloof, less like a hero than a god. Foreign envoys saw him seldom and the masses had only rare glimpses of him. As a result, he became completely divorced from the problems of ordinary life and of ordinary men, and he saw them as abstract figures in his theoretical schemes.

Khrushchev is an entirely different type of hero. Recently he said at a meeting: "People are always throwing papers into my pockets. Apartments, apartments, apartments. I should have bigger pockets." The audience laughed warmly. He appeals to the Russians for reasons which are personal rather than political. They like

A group of children eye a display of stuffed dolls at a store in Moscow. Such displays are no longer a rarity in the U.S.S.R. Consumer goods, even for children, are generally available but not in great abundance. Although prices are relatively high for such items, they are still within the financial means of many families.

his sense of humor, his folksy but intelligent personality. They identify themselves with him, especially since he is even built like so many of them. He is the father and the roly-poly grandfather down at the *kolkhoz*. They are proud of him because, in their view, he has led them out of the bestial tyranny in which they had been living. Ignoring political differences, his personal appeal might be compared with that of President Eisenhower.

Americans were famished for a hero when Colonel Glenn came along, and the whole nation was swept by a wave of joy. The Russians seem to solve this problem by producing heroes almost wholesale. There are heroes of labor; medals are bestowed on artists, shock brigade

leaders, stakhanovites, actors and actresses, writers and academicians. There are also mother heroines, women who have had ten children. Against this background, today's astronauts are superheroes. They are the brightest stars of all.

Members of the Academy of Sciences have a high social standing but, though much-decorated, they cannot yet be described as popular heroes. So far, it has been the Communist Party and the Soviet people who have been given credit for the sputniks and for the Soviet flag planted on the moon.

As we have an All-American ideal—clean scrubbed, clean living—so do the Soviets have "The Soviet Man." The All-American ideal sits well with mothers of marriageable



daughters and with employment agencies seeking reliable candidates. Madison Avenue uses this type to sell certain products. In Russia the "Soviet Man" is forever being publicized (although his actual existence seems doubtful). He is the hero in the movies, and the Communist Party expects him also to be the hero in

novels and on the stage. He is the man on the poster, the postage stamps, and on the canvases of Soviet artists. Soviet Man does this or Soviet Man does that. He also does not do this or that. People, when they dare, joke about this Man that nobody seems to know. Children are supposed to grow into worthy imi-

tators of his perfection.

Nevertheless, little girls dream of being ballerinas and boys dream of travel all over the world, something very difficult and restricted for Russians. Young men and women, stifled by the hush-hush of Stalin's time, yearn to express their innermost feelings freely. A new type of hero is appearing on the horizon. One of them is Yevtushenko, the poet who speaks for the new generation.

HANDICRAFTS

Russian peasants had been making objects of all kinds to satisfy their own needs since the beginning of time. But toward the end of the 19th century, when serfdom was abolished and a livelier and more complicated life evolved, handicrafts acquired their greatest importance. It has been calculated that in the winter about seven million peasants devoted themselves to some form of home manufacture. The country was overrun with merchants and middlemen, who bought the products at low prices and sold them again in the towns. Nowadays, the few artisans that are left work in co-operatives protected and owned by the state. The variety of handicrafts in the Soviet Union reflects the variety of the ethnic groups into which the country is divided, as well as the easy local availability of different materials. In the huge forested areas of the north, woodcarving was the most important craft, with figures drawn from the northern landscape predominating. In the steppes, carpets and leather objects are produced and in the Caucasus, metalwork.

Among the best known of the woodwork articles are those painted in oil in traditional floral patterns. In recent times there has been a tendency to use motifs suggested by history and modern life. They may be boxes, spoons or cups, of typically Slavic design. Russian handwork is also seen in charming toys. Especially well known are the *matreshki*, the little wooden dolls that fit into each other. Equally popular are the Palekh



Behind the scenes of the popular Obratsov puppet theater in Moscow. Often considered the best puppet show in the world, the Obratsov theater is run by a staff of more than a hundred persons and has a repertoire of over forty plays. Most of these are for children, but a good number also appeal to adults.

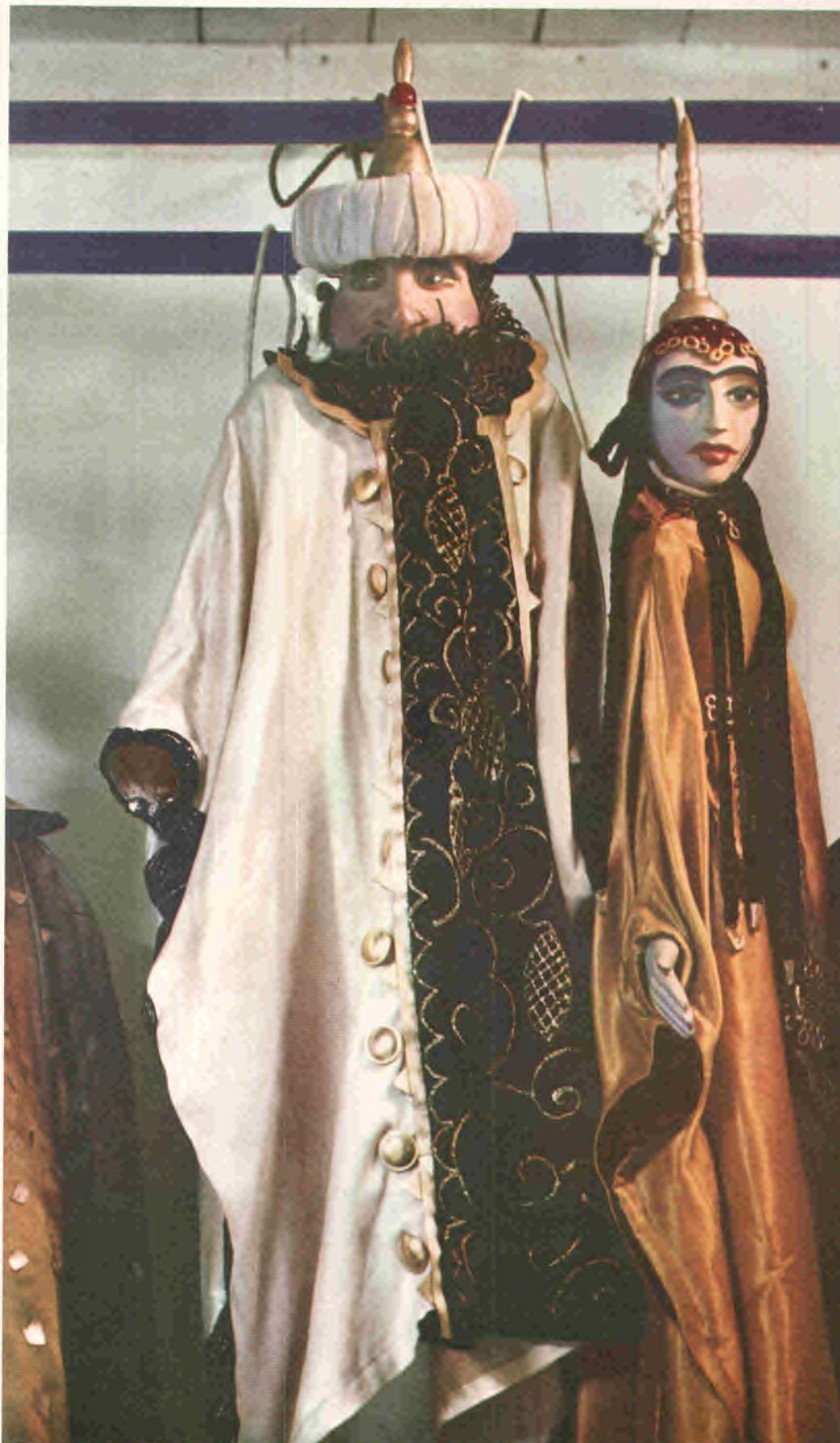
Exotic puppets create the appropriate Oriental atmosphere for the Obratsov theater's presentation of Aladdin and the Magic Lamp. Other popular shows include Kipling's Mowgli; a satire on Hollywood called In the Flutter of Your Eyelashes; and a hodge-podge variety show entitled An Unusual Concert.

boxes, which inherited some of the artistry previously devoted to the painting of icons, for which Palekh and Kolouz were famous. The Archangel region, in the Arctic North, has been known since ancient times for its ivory work, while the Urals were and remain the source of beautiful rare pink and green stones of which cigarette and jewelry boxes are made today. These Ural stones embellish the luxurious tables which can now be seen in the Museum of the Hermitage in Leningrad.

As in most Slavic countries, the making of colorful and artistic needlework, especially cross-stitch, was the traditional occupation during the long winter nights. The Ukraine also boasts artistically woven cloth and pottery.

But an ever-expanding industrial development has had a negative effect on these handicrafts. Some of the other peoples of the Soviet Union, whose contact with the Industrial Revolution is both more recent and less significant, have kept all their original forms of production until now. The Caucasians are an example. Their work in cloth, leather, metal and wood shows the signs of a taste which has been evolving for centuries. No less noteworthy is the artisan-work of certain peoples of Central Asia, for example, the precious carpets of Dagestan, Azerbaydzhan and Turkmenistan. Armenia is noted for jewelry and inlaid work as well as for intricate glaze work.

There is a special shop in Moscow, much visited by foreigners, which sells these typical objects. They can also be found in hotel lobbies and gift shops. At one time there was always a great collection of these crafts at the famous fair of Nizhni Novgorod, which represented every nation of the country, together with Chinese and Persians, and was attended by half a million people. The fair was a meeting place for traders from East and West. More than three thousand shops and over four thousand booths offered all manner of things—from horses to tea, from furs to jewels, from furniture to clothing.





The annual May Day celebration in Moscow's Red Square combines color, pageantry and political fervor with grand displays of military might. Such mass gatherings, common throughout the Soviet Union, are intended to instill a collective enthusiasm in the people. May Day (the first of May) was designated as a world-wide labor holiday by the International Socialist Congress in 1889.

FOOD AND DRINK

THE RUSSIANS AT TABLE

The Russians were famous throughout Europe for the splendor and abundance with which they set their tables. History records the orgies and excesses of Peter the Great, a man of exceptional physical

and spiritual vitality. Catherine the Great was no less renowned for the sumptuousness and endless succession of courses of her board. Hardly less rich and luxurious, not to say extravagant, were the meals of the nobility. Cooks were paid more than high dignitaries.

The magnificence astounded travelers from Europe, one of whom wrote: "The meal was marvelous and, as our host told us, it was made entirely from his own produce, and cooked by one of his own serf-women. He has his own cook, who is apparently excellent, but he prefers this woman for the variety of her dishes. Sturgeon from his own ponds, enormous crayfish from his own rivers, asparagus from his kitchen-garden as fat as walking sticks and as tender and white as snow, veal

of his own rearing, fruit from his own hothouses, and not least the wine... Then, while we listened to the singers 'of the house' liqueurs 'of the house' were served! And when the host saw that he had pleased us he had some bottles of wine put into our carriage. This was a real example of Russian hospitality and generosity, such as you don't find in Europe!"

Travelers say the same today about Russian hospitality, above all in the upper, ruling classes. The splendor of the Russian table survives in the form of public banquets, and in the hospitality given by the Soviet government to officials and foreign dignitaries.

RUSSIAN HORS D'OEUVRES

One cannot speak of Russian cooking without mentioning first the

famous *zakuski* (*hors d'oeuvres*), the richness and variety of which are such as to afford good meals in themselves. *Zakuski* includes every sort of salad, of fish and also fruit, mixed with egg, seasoned with oil, butter, vinegar, mustard and cumin. *Smetana* (sour cream), one of the most widely used ingredients of Russian cooking, comes in salads of fresh cucumber, radishes, eggs, etc. Fish of all kinds are also part of the *zakuski*: herrings and salmon, sturgeon and perch, as well as trout and smoked fish from the North Sea. There are many qualities of caviar, but notably two kinds—the small and black, which is sweet, and the red, which has larger and more bitter-tasting eggs.

Meat appears in the *zakuski* in the most various ways, *paté*, suckling pig with mustard, served whole and cold. All sorts of game are widely used, as well as veal, lamb, beef and salted meats, ham—which the Russians like in thick slices—and sausages of every kind. Some dishes would amaze a Westerner, like the Russian game-salads and the *patés* of mushrooms and eggplants. There are also hot *zakuski*, among which the *bitochki* with *sметана* are typically Russian—meatballs covered with sour cream and sprinkled with finely chopped greens.

SOUPS

The most widely eaten and most typical is the *schi*, a soup made basically of cabbage, with variations achieved by the choice of vegetables and broth. In the old days this soup stood in the middle of the table in the *izba*, with everyone soaking his bread in it, the very black and slightly moist Russian bread. *Schi* is also on the menu at every smart hotel and restaurant. *Borsch* is a kind of refined version of *schi*, with beets as its chief ingredient. It is often served with a spoonful of *sметана* and there are as many variations in its preparation as there are cooks and availability of different ingredients. *Solyanka* is an intriguing soup in which meat and sausage are used. Cold soups and fruit soups are also widespread.

FISH

Russians consider fish a delicacy and treat it accordingly. The place of honor is kept for the sturgeon, of which there are various kinds (*osetr*, *sevrjuga*, *beluga*, *sterljad*), the most famous being the Siberian *osetr*. And of course, there is caviar, one of



A modern open-air concert theater in Tallinn offers a sharp architectural contrast to the city's more venerable structures. Parts of Tallinn, particularly the port sections, were heavily bombed during World War II. Following the war a vigorous rebuilding program was instituted.

Representatives of participating Soviet republics and nationality groups march in precision time behind their flags at the opening ceremonies of the Spartan Games in Moscow. The events are held in huge Lenin Stadium, which seats more than 100,000 people. The best performers in the various track-and-field events win great acclaim and are accorded special privileges.





Blue-and-white shutters help provide an unusually attractive decoration for an izba in a Siberian village. During World War II tens of thousands of people—particularly members of Asiatic minority groups in the European U.S.S.R.—were accused of disloyalty to the Soviet regime and "resettled" in Siberia. Many remain there to this day.

the world's supreme delicacies. There are as many types as there are kinds of sturgeon. Caviar can be served pressed or fresh, the latter being sweeter and more delicate in flavor. Russians prefer the gray, large-egg *ikra* of the *beluga*, or big sturgeon. Caviar is one of the main and most appreciated items in the *zakuski*. It is eaten on buttered bread. Salmon eggs are the popular red caviar, which is really orange-colored and much less expensive.

MEATS

Traditional Russian cooking favors beef more than other meats, while the Eastern peoples prefer lamb. Pork is usually salted among the Russians, although one of their dishes for great occasions is suckling pig roasted whole in milk.

The eastern republics of the U.S.S.R. offer a great variety of dishes of lamb, mutton and kid: the Armenian *khorovoo*, the Georgian *canakhi*, the *barakabob* and *dolma*. The most widely known is the Georgian *shashlik*, which can be found not only in the Caucasus but in all the principal restaurants of Moscow and Leningrad. The Aragvy in Moscow has become world-famous for this specialty. And of course, there are all the other famous Caucasian and Asiatic dishes. The Georgian *chakhokhbili* is stewed chicken, with onions, tomato sauce, vinegar, wine, pepper and olives.

Among the more typically Russian dishes are *pelmeni*, large ravioli with

a filling of meat served in a broth. Menus in the main cities are sure to list Cutlet à la Kiev, made of chicken breast flattened and stuffed with butter, breaded and fried, the butter inside serving as a sauce for the chicken meat; Cutlet Pojarsky, of ground meat, and also fried; while Beef Stroganoff, made with sautéed beef and sour cream, has become almost a banality in New York as well. Russians eat much cabbage, both red and green, fresh and sour or pickled. It is a common accompaniment of pork or duck. Fresh dill sprinkled on cold soups or salads is a distinctive addition, as is also the taste of sunflower seed oil.

SAUCES AND OTHER SPECIALTIES

Milk and milk products occupy an important place in Russian cooking. It is enough to mention here *smetana* (sour cream), perhaps the most important of them all; *tuorog*, a kind of curd; *prostokvasha* (sour milk); *kefir* (a kind of yogurt); various forms of fermented milk, *kisel* (made from skimmed milk, potato flour and sugar); and last, a very popular drink in the East, *koumys* (sour mare's milk, fermented), a mildly alcoholic drink which is nutritive as well. *Smetana* (sour cream) is often used for sauces. In the Caucasus and Central Asia, sauces are sharp and highly spiced.

A world-famous dish is the Russian salad based on cubed potatoes, peas and carrots, with chicken breast added, and everything mixed with

cream and egg. Ham, sea food, cucumbers, pickled gherkins and other ingredients are used for other variations. *Kasha*, the typical dish which in the past provided the basic diet among the country people, is made of millet, buckwheat, barley, oats or, at smart restaurants, *trigo sarraceno*, accompanying pork or duck.

PIES AND CAKES

Pirog is a turnover filled with meat, fish or rice; it is fried or baked. There is a sweet *pirog*, with a filling of jam or sweetmeats. *Blinis* are a kind of pancake which at their most luxurious are served with a topping of caviar and *smetana*. Of course, they may be eaten in many other ways, *smetana* doing for them what butter and maple syrup do for pancakes.

DRINKS

There are many different kinds of vodka, the best being the white kind, of which the *Moskovskaja* is perhaps the most famous; and there are vodkas with *percovka* (pepper) and *zubrovka* (aromatic herbs). The Russians drink it both during and between meals, but it is advisable to take a mouthful of food with each glass. As part of an anti-alcohol campaign begun in 1960, vodka has been made extremely expensive in an attempt to limit its consumption.

Another typical Russian drink is *kvas*, which has a sour-sweet taste and is slightly alcoholic, made from barley and rye. *Braga* has a slight alcoholic content, tastes vaguely like a light beer, and is close to *kvas*, with a dark brown color.

Many wines, especially red wines, are produced in the U.S.S.R., particularly in the Ukraine, the Crimea and the Caucasus. There is also champagne, which is somewhat sweet. Madeira and Sherry type wines are produced in Armenia, Uzbekistan, Turkmenistan and the Crimea.

There is also Armenian cognac, which is dark in color and with a slightly sharp taste. The most famous is the Jubileynyi. Various liqueurs are also produced—Benedictine and Chartreuse as well as such original ones as "Odesskyi," "Visnevyyi" and "Cernosmorodinovyi"—and are very popular among Russians who like their drinks sweet. Cider and beer are widely drunk. But no summary of Russian food and drink would be complete without a few words about tea, which the Russians drink in enormous quantities every day.

In the past tea was drunk in every Russian family as a ritual on its own. After making a strong brew in a pot, the lady of the house would pour it and then add boiling water from the *samovar*. The *samovar* is not, as is often believed, the actual pot, but a kind of metal kettle with a flame underneath, so that hot water is always at hand. At one time drinking tea in the so-called *vpriskusu* way—that is, sugar-saving way (putting a lump of sugar in the mouth and drawing the tea through it)—was common among the poor classes.

However, tea has not always been a popular drink in Russia. It reached Russia in the Middle Ages from the East, and the best tea was that brought into the country along the caravan routes. For many centuries it remained the drink of the merchants, noblemen and town dwellers generally, but today everyone drinks it. The best tea plantations in Russia are those in Georgia, Azerbaydzhan and on the coast of Krasnodar. The most popular is the black tea, but in the Asiatic republics, in Siberia, in the Urals and along the Volga, a green tea called *kok* tea is preferred. This is prepared differently from black tea. It is not allowed to brew and it has a more decided taste and perfume.

Students from Soviet Central Asia take a few hours off from their studies at Moscow University and relax in a park outside the capital. Members of minority groups who demonstrate both loyalty and academic promise are often brought to Moscow, Kiev or Leningrad, where facilities for higher education are superior to those in their native lands.

SPORTS

The sudden debut of the Soviet Union as a major power in the field of sports came as a great surprise to the outside world. The isolation of the country during Stalin's regime prevented a widespread awareness of the fact that the Soviet Union had introduced into sports a meticulous system of recruiting athletes as well as the practice and theory of sports all over the country on a gigantic scale.

The participation of the state in the organization of sport is total, embracing everything from publicity to the training of athletes, the building of new clubs and medical assistance, the planning of activities on a mass level and so forth. The athlete is trained and looked after by the state from childhood, a far different procedure from that in other countries, where the children usually take up the sport of their choice and are provided for by their

school or sports club.

The amateur status of Soviet athletes has sometimes been questioned in the West, since they have every chance of giving their full time to their training. They are in effect subsidized by the state, or they may be broadly considered to be employees of the state, being very well paid, as are Soviet artists and writers. The Soviet athlete is usually attached to a factory or an office, which nominally employs him; this, however, gives the Soviet athlete only nominal, not actual, status as an amateur. As a rule, the worker, the student or the peasant trains at the club connected with his factory, school or *kolkhoz*. Transfer to other athletic clubs takes place only when facilities are not available locally.

The existence of sports clubs attached to factories and universities makes training much easier. For example, Moscow University puts swimming pools and gymnasiums at the disposal of its students in a huge compound devoted to sports. Farms and villages look after the training





A country wedding finds the bridal couple dressed in traditional embroidered finery. At one time wedding celebrations in the old Russian villages were elaborate affairs. After the Revolution, however, the civil registry took over the function of the old-fashioned church weddings. In recent years reaction against the bureaucratic coldness of civil ceremonies has brought about a partial return to the old ways.

of their members so as to furnish the big stadiums, for example, the Lenin Stadium in Moscow, with the best athletes. These sports clubs formed by schools, factories, villages and trade unions come under control of an agency which might be called the Government Ministry of Sport. The clubs themselves are operated by institutes of physical education, which furnish the instructors.

Under these conditions there are tens of millions of new sportsmen in

the country. Statistics explain how so many Olympic world champions can come into being; the supply of talent is enormous. According to official data, there are 22 million sportsmen using 1700 stadiums, 2800 football fields and 200,000 basketball grounds. Thousands of teachers and trainers graduate every year from fifteen institutes of physical education. The institutes of Moscow and Leningrad are the most important of these, the one in Moscow having

been the first to be opened, in 1920. Instruction is at the university level and courses last four years, with a degree at the end which may be for actual teaching or for further specialized study. Graduates find work readily in schools, sport centers, clubs and other organizations.

This set-up, covering all ages and every social category, can be compared with a real military mobilization, and is only possible under the kind of state control which exists in the Soviet Union. Undoubtedly this mobilization offers great advantages, especially when it comes to scoring, but on the other hand, the masses are drilled increasingly even in their amusements. This summary deals with the results of this system, not with the moral aspect. But certainly the results are due, in the first place, to the rounding up of sportsmen from every walk of life and to the all-encompassing organization of Soviet sport. As for the other aspect, the same principles apply as in all Soviet society—organization is planned and functions through exhaustive propaganda which provokes at one and the same time interest and a sense of irksome duty; warm enthusiasm and sometimes tough obligation; a spirit of emulation but also one of sacrifice.

A MINISTRY OF SPORT

The results achieved in international games have whetted the Russian appetite and spurred them on to further mobilization of talent from a population of more than 200 million people. There is a state program for peak development in 1965; this date is significant because the Olympic Games are to be held in Moscow three years after that. The fulfill-



The young newlyweds receive gifts of animals and food from admiring relatives and villagers. In an attempt to recapture the warm atmosphere of the traditional weddings, the Soviets have erected numerous specially decorated buildings, called "wedding palaces," where non-church ceremonies may be held in congenial surroundings.

ment of such a heavy program necessitates the closest collaboration between sports and other areas. This is done by the Union of Sports Organizations, which is comparable to a ministry.

The ministries and agencies which collaborate closely with the Union of Sports Organization in the U.S.S.R. are those of Public Education, the Council of Workers' Trade Unions and the Center of Cooperatives. The organization extends to every republic of the Soviet Union and combines various national and regional groups. The Union, set up in 1959, has served as a stimulant to all the various state agencies devoted to the encouragement of sport.

Training for the Olympic Games began only in 1935 and it was then that championships in athletics, gymnastics, football and boxing were for the first time regarded as nationally important. The Soviet Union became a member of the main international sports federations and of the International Olympics Committee only after World War II. The number of sportsmen rose from 3 million in 1948 to 20 million in 1958. The first phase of the national reorganization of sport was inspired by the aim to better the physical and moral health of youth. New sport centers were built and instructors were trained. The transition from quantitative to qualitative recruitment began after World War II with the gradual development of selective methods in the most important sports.

The emphasis on quality began with the Olympic Games at Helsinki in 1952. From that moment on, Russian sport has gained increasing momentum and quality. It has perhaps a tendency to overemphasize the championship element, to hunt breathlessly for trophies to establish Russia's supremacy in this field. But the fact that sport has become part of the Cold War does not diminish the achievements of Soviet sport.

It is calculated that three out of every five workers and three out of every four students practice at least one sport. Gymnastics is obligatory in all schools in the U.S.S.R. and every institution participates in special sport contests where national selections can take place.

In the schools children between the ages of seven and eleven are trained in exercises with hoops and clubs, parallel bars, poles and ropes.

Every type of equipment is standardized until, in the final gymnastic competitions, the young feel completely at ease.

The famous national Spartan Games are held in the Soviet Union one year before the Olympics and provide a valuable means of elimina-

tion. The most popular sports are gymnastics, at which Russians excel, soccer, basketball, track and skiing.

1.25 MILLION SOCCER PLAYERS

There are over a million and a quarter soccer players in the Soviet Union and about 50,000 teams,

Members of a collective farm in the Ukraine, dressed in their traditional costumes, listen to the reading of a weekly newsheet. Fur-lined leather jackets and shirts embroidered with floral designs are characteristic items of folk dress in the Ukraine.



among the most famous of which are the Dynamo, Spartak, Torpedo, Locomotiv and Zenith. The 'A' League is composed of fourteen teams, the 'B' League of twenty; the most important football cities are Moscow, Leningrad, Kiev, Tbilisi, Kuybyshev and Minsk. Seventeen thousand teams compete for the Soviet Cup, four thousand for the Trade Union Cup, two thousand for the Kolkhoz Cup. There are championships not only on the national level but in each republic, with many secondary matches.

Basketball is played on thousands of fields all over the country, and about 2.7 million people participate in it. Skiers are especially numerous in the Caucasus and Kirghizstan. Ice-hockey teams number about two thousand.

About 1.8 million people go in for athletics, without counting school children. There are 60,000 boxers; Russian boxing matches have three

rounds of three minutes each. Cycling, both on road and track, is on the increase. Figures are high for track, swimming, water polo, sailing, rowing and fencing.

The most important sports compound in Moscow is the Lenin Center, an area of about four hundred and fifty acres on the northwest outskirts of the city. It was put up in 1956, with a stadium of more than 100,000 seats, dressing rooms accommodating 8000 athletes, a Sports Palace seating 20,000, a swimming pool for 15,000, a covered basketball court for 17,000, and about fifty other secondary enclosures, among which are three football fields, various courts for basketball and tennis, skating rinks, lodgings for athletes, recreation grounds, restaurants and gardens. In the same area there is a ski-jump 255 feet high and 210 feet long.

Another important compound in

Moscow is that of the Dynamo team, which has a stadium for 80,000 people and can be used in the winter for ice-hockey, with three swimming pools and a canal for rowing and sailing regattas.

The Trade Unions in Moscow have twenty sport centers, one of which is huge. They cater to basketball, wrestling, weight-lifting and fencing.

In Leningrad the principal stadium holds 80,000 people, and has standing room for another 20,000. The Palace of Sport has a track, a basketball field and halls for boxing and tennis. The most important stadium in Kiev (60,000 seats) is similar to that in Leningrad in design.

The results of all this activity were seen at the Olympics: at Helsinki (1952), twenty-two gold, twenty-nine silver and nineteen bronze medals were won; at Melbourne (1956), thirty-seven gold medals, twenty-nine silver medals and thirty-two bronze medals; in Rome (1960), forty-three gold, twenty-nine silver and thirty-one bronze medals. In eight years the number of Olympic prizes won by Russians had risen

Bundled up in dark, heavy coats and berets, Muscovites sell birds and other small animals at a "free market" in Moscow. This is one of the few places where energetic citizens may sell various items at a profit. Many kolkhoz farmers bring produce grown on their "personal plots" to such markets in hopes of supplementing the family income.



from seventy to one hundred and three. One hundred and three medals out of a total of four hundred and sixty-one distributed in Rome to athletes of forty-four nations is a significant achievement.

EDUCATION

"EDUCATION IS THE TOOL WITH which we shall pry the masses loose from the past and spring them into the future." So Lenin prophesied shortly after the Revolution of 1917. He might have added that the "tool" would remain the property solely of the Communist Party and that it would be wielded only as the Party saw fit.

The Old System

Since its birth the Soviet hierarchy has taken the keenest interest in the education of the masses under its sway. The period from 1921 to 1931 was one of experimentation and "progressive" methods in Soviet education. Few textbooks were used; teachers were allowed to pursue their own theories of education so long as they kept within ideological bounds; free discussion was encouraged, as was the unrestricted development of each child's abilities. Unfortunately, this system failed miserably, and the blame was laid not upon the pitiful lack of facilities and trained teachers but on the progressive system itself.

At Stalin's command all experimentation ceased. After 1931 the stress was—and has continued to be—upon rigid school discipline and absolute obedience to the teacher. The educational system was centralized. A uniform curriculum (with certain local differences) was made mandatory in all schools. Educational psychology was scrapped as a "bourgeois" innovation. Indoctrination replaced discussion. Stalin was the Great Teacher "who leads our country to Communism and shows the road to Communism to all the world" (quoted from a sixth-grade textbook).

Thus the tool that had been used to "pry the masses loose" was now being used to hammer them into ideological submission.

Despite its defects, the Soviet educational system expanded rapidly. Illiteracy was virtually abolished and a solid basis was laid for Soviet achievements in the sciences. Stalin died in 1953; four years later his name was mentioned only in passing



An avid group of chess players practice up on their game in a Moscow park. Chess is a great passion of the people of the U.S.S.R. After World War II, such Russian masters as Mikhail Botvinnik, Vassily Smyslov and David Bronstein dominated world chess championships. In the 1960s a young Latvian, Mikhail Tal, has come to the fore as one of the world's greatest chess-masters.

in hastily rewritten textbooks. The system of education he had established was being seriously re-examined by his successors.

Ironically, the launching of the first sputnik in 1957 won new respect in the West for the Soviet educational system. Long ridiculed and scoffed at, the old system barely had time to bow to the unaccustomed international applause before the new Soviet hierarchy hauled it off the stage for a radical revamping.

The New System

In 1958 Nikita Khrushchev announced: "There are great shortcomings in the work of our school and higher educational establishments that can no longer be tolerated...The chief and fundamental defect in our schools is the fact that they are divorced from life."

A new educational program, to be fully implemented by 1965, was put into effect.

Emphasis henceforth was to be on "applied" learning. Scholarship *per se* was to be discouraged. Education was to be "drawn closer to production" and linked up with production

directly wherever possible.

This means that, in the new system, "all young people must join in socially useful work at industrial establishments, collective farms, etc." This "socially useful work" is to be undertaken while the student is in the process of completing his secondary schooling. Most students are also expected to spend an additional two or more years "in the field" before applying for a higher education. "The higher educational establishments should enroll young people who already have some experience of life and have a record of practical work."

Primary and Secondary Schools

THE SOVIET SYSTEM PROVIDES NURSERIES (noncompulsory) that care for children from the age of three months to three years. From the age of three to seven, children may attend a kindergarten. Such preschools are used chiefly by families in which both parents work—a common occurrence. Parents pay about a third of the cost.

Compulsory free schooling begins at the age of seven. Primary and

secondary grades are normally taught in the same school. Until recently, students attended either four-, seven- or ten-year schools. Four-year schools (ages 7-11) were common mainly in rural areas and students generally went on to a seven-year school for three additional years before ending their schooling.

The majority of children attended either a seven-year ("incomplete secondary") or a ten-year ("complete

secondary") school. Only a small fraction of those in seven-year schools (ages 7-14) went on to a higher education. Those in ten-year schools (ages 7-17) had the best opportunity to continue their education at a university or institute of higher learning. Students in both seven- and ten-year schools, could, however, enter or transfer to a *technikum* (ages 15-19), where various vocational skills were taught.

The new system referred to above calls for all students to attend an eight-year school (ages 7-15). At the end of grade eight, examinations determine what type of secondary education the child will pursue. There are three main types of secondary schools.

The majority of children will enter a *school of rural and working youth* (ages 15-18), where they will receive training in some vocation and no further academic schooling. They will not be eligible for higher learning.

The second largest group will attend a *technikum* (ages 15-19), where they will be trained as specialists in some chosen field and also receive a broader, though still limited, general education. A small percentage may apply for higher education.

The third and smallest group will go to a *polytechnical school of general education* (ages 15-18), where they will receive full vocationally oriented secondary educations. Those who demonstrate both ability and political loyalty will be allowed to pursue a higher education.

Students in all three categories will spend a good part of their time gaining on-the-job experience in a vocation or field of study related to their line of endeavor.

In addition to the above types of schools, the Soviet system also maintains special schools for persons showing exceptional talent in any of the several arts (especially music, painting and ballet). There are also specially equipped schools for handicapped children.

BOARDING SCHOOLS

A new system of coeducational boarding schools, established in 1956, has proved something of an enigma to Western observers. The boarding school takes the child out of the family environment and moves him (or her) into an atmosphere of "total control." This has led some commentators to believe that the boarding schools are actually training grounds for future Communist leaders. Soviet officials insist, however, that the boarding schools were established



Flowers bloom in abundance is a corner of the Sokolniki recreation park in Moscow. Large national and international exhibitions have been held on the grounds here. The park offers tennis courts, swimming pools, a cinema and open-air theater, cafes and restaurants, concerts, lectures and festivals.

merely to meet the needs of children from "problem" families, that is, families in which death, divorce or some other occurrence has caused unsuitable conditions at home.

By 1960 more than one million children were in attendance at such schools, and the number was expected to multiply several times by 1965. The curriculum parallels that in the regular schools, taking the child through the "complete secondary" education. It seems likely that the boarding school, although still in its experimental stages, may be a harbinger of future trends in Soviet education.

Higher Education

PARTICULAR EMPHASIS IS GIVEN TO schools that train teachers for schools of general education. The primary school teachers, having completed work at a ten-year school, attend "pedagogical schools," which offer a two-year course. Secondary school teachers attend a "pedagogical institute," which offers a five-year course.

Among the 766 institutions of higher learning in the U.S.S.R. in 1960, there were 33 government universities under the administration of the Ministers of Higher Education and Culture. The leading universities are in Moscow, Leningrad, Kharkov, Odessa, Tartu, Kayan, Saratov, Tomsk, Kiev, Sverdlovsk, Tbilisi, Alma-Ata, Tashkent, Minsk, Gorky and Vladivostok. After completion of full secondary school, admission to the universities depends upon passing entrance examinations. It is worth stressing again that priority is given to students who have completed a minimum of two years of production work *after* having graduated from a secondary school or *technikum*.

The courses vary in length, depending on the subject: four years for economics, history and philosophy; five years for engineering, biology and chemistry; six years for medicine. In addition to the major subjects, courses in Marxism-Leninism, dialectical materialism and at least one foreign language are required. Upon successful completion of the course of study, a degree is granted.

A further three years of study and the completion of a thesis (or "diploma project") are necessary for a *Kandidat* degree. A small percentage of those who get this degree, roughly equivalent to an M.A., may work for a doctorate. Study for the latter degree takes about four years.



Modern buildings in Yerevan, capital of the Armenian S.S.R., give little indication that the town dates back to the 8th century B.C. and is one of the oldest in the Soviet Union. Traditional Armenian features can still be found on many modern government buildings.



This rectangular white building in Alma-Ata is the seat of the Kazakh Academy of Science. Alma-Ata (meaning "Father of Apples") is surrounded by apple orchards and is considered to be among the Soviet Union's most beautiful cities. The city is the capital of the Kazakh S.S.R.



The Deposition, a large 15th-century icon (pictorial representation of Christ, Mary or a saint) in Moscow's Tretyakov Gallery. This well-known gallery, which specializes in religious art and historical paintings, is but one of Moscow's more than one hundred museums—many of which were cathedrals in tsarist times.

Kandidat and doctor's degrees carry enormous prestige; neither, however, is necessary for advancement in the great majority of professions. The institutes that carry the most prestige for graduate study are the branches of the Academy of Sciences of the U.S.S.R.

YOUTH ORGANIZATIONS

THERE ARE THREE MAJOR YOUTH organizations in the Soviet Union whose activities are closely correlated with, though separate from, the regular educational system. These youth groups—the Little Octobrists, the Young Pioneers and the Komsomol—serve a variety of purposes. They aid the work of the regular schools, train children in "Communist morality," teach various skills and organize leisure-time activities. In addition, they provide a reservoir of organized youth which can be drawn upon to perform various social tasks.

The Little Octobrists

The slogan of the Little Octobrists (ages 7-10) is "Only those who love labor can be called Octobrists." They derive their name from the October Revolution of 1917. The children are instilled with a respect for the Communist ideology in its most elementary aspects. To become a member of the Octobrists is not difficult, and the great majority of children belong. Few special tasks are given to the children. The chief activities are games, sports, dramatic plays and so on.

The Young Pioneers

The Pioneers organization (ages 10-16) is a much more important and solemn affair. The Pioneers in 1962 numbered about 18.5 million. One of their slogans is "A Pioneer is an example to all children." Members are organized into brigades and receive intensive indoctrination. Leaders are usually members of the Komsomol. Activities are manifold and often involve manual labor. Children are trained to be "doers" in society. Membership in the

Pioneers is almost invariably a prerequisite for entering the Komsomol. Pioneers become eligible for the Komsomol at age fourteen.

The Komsomol

The Komsomol (ages 14-28) is the paramount youth organization in the Soviet Union. Although not officially a Party organization, it is "a reserve and aid of the Communist Party." The vast majority of Party members worked their way up via the Komsomol. Fewer than half the eligible age group become Komsomol members. Only the most promising Pioneers are allowed entrance. Present membership in the Komsomol, cover-

ing the age span of fourteen years, is about 20 million.

Tasks performed by the Komsomol resemble those of the Pioneers, but are often more serious and broader in scope. During the early 1930s Komsomol members were mobilized to build new cities in Siberia and the Soviet Far East. The chief of these was named Komsomolsk to glorify their achievements. Komsomol members become eligible for membership in the Communist Party at the age of 24.

The Stilyagi

A broad segment of Soviet youth stands outside and apart from the

The visually-astonishing Church of the Transfiguration, an all-wooden structure, was built in the village of Kizhi in 1714. This was at a time when the new "stone city" of St. Petersburg was still in the throes of construction. Since building supplies, particularly stone and brick, were very scarce, Peter the Great sent out an order that no stone or brick structures could be built in Russia until construction of the new capital was completed. This order resulted in the building of innumerable wooden structures elsewhere in Russia.



mass youth organizations. Those who do so not out of inability but because of indifference or even outright antipathy are generally known as the *stilyagi*—the youthful malcontents of Soviet society. Many of them cultivate Western tastes and even become "addicted" to American jazz. They show, in as discreet a manner as possible, a definite skepticism about the Soviet system. They form no coherent group and often hold views diametrically opposed to one another. Yet their pride at being "outsiders" gives them a common bond that the Communist hierarchy has repeatedly attempted to break—with little apparent success.

THE RUSSIAN NATIONAL CHARACTER

National characteristics are hard to define, because they are complex and often contradictory; indeed it is dangerous to think in terms of national

characteristics, because they are indications, not precise definitions.

In the Epilogue to his novel *War and Peace*, Count Leo Tolstoy almost discourages any discussion of the Russian character by stating that the story of humanity—history—is too broad in scope to be pinned down in mere words.

Can Westerners, then, presume to examine Tolstoy's own people and hope to know what the Russian thought over his samovar or what he thinks under his Sputnik? Winston Churchill has said: "I cannot forecast to you the action of Russia. It is a riddle wrapped in a mystery inside an enigma." Would, in fact, the Russian peasant of 1905 understand the thoughts of his grandson, the Soviet citizen of the 1960s?

Love of Country

In understanding a people, it is often revealing to evaluate their feelings for their country. In this—as in

everything one can discover about Russians—one must not expect them to think, feel or act like Americans. Indeed, from their point of view, American behavior must seem particularly strange. It is as if these two peoples are playing a game with each other—a game both sides know but call by different names and play with different rules, so that each side accuses the other of cheating.

Like Americans, like all men, the Russians love their land. One of their greatest poets, Mikhail Lermontov, begs his reader not to ask him why he loves his country. He then tells how he loves the silence of the fields in the cold; the movement of the somber forests in the wind; the raging of the rivers, flooding like seas. He loves because he must: his logic plays no part in it at all.

Lermontov's emotional reaction is not unique. The Russian's feeling that he is Russian is less openly "patriotic" than American nationalism. The Russian's is, rather, a sense of belonging to a solid great-hearted community of reasonable men, and of possessing these qualities on a grander scale than other peoples. It is not that the Rus-

Left below: A woman from the Turkmen S.S.R. wears two decorations of merit on her embroidered blouse. A large brooch set with stones is fastened to her blouse and small buckles decorate her hat. The Uzbek, Kazakh and Turkmen peoples still retain elements of their traditional costume in their everyday dress. Right below: A girl from Alma-Ata, capital of the Kazakh S.S.R., wears an embroidered fez and a gaily colored tunic.



A Kazakh girl snuggles up to her pet camel on a collective fishing establishment near Lake Balkhash in the eastern Kazakh S.S.R. The camel is still a dependable beast of burden among the once-nomadic Kazakh peoples.

sian loves less or has suffered less for his country. But the way one thinks about one's country is determined by its nature; and life in the Soviet Union has never been easy.

The Russian Climate and the Russian Character

The Russian's love for the soil has developed from his struggle with it: the strength and solidity, the relentlessness and monotony of the land are expressed unconsciously in the stubbornness and patience of the man. The relationship between the Russian climate and the Russian character may have been overemphasized, but it cannot be ignored. It may be evaluated in depth, but it can never be expressed more acutely than in Tolstoy's thought that Russia and summer do not go well together.

The Russian character is born to adversity and learns how to deal with it. The "summer" of soft, Western comforts has appeal for the Russian, to be sure, but he is not comfortable with it for too long.

Perhaps the classic statement of the climate-character relationship is given in Baedeker's 1914 *Guide to Russia*: "Their character has been influenced not only by a long history of feudal despotism, but also by the gloomy forests, the unresponsive soil, the rigorous climate, and especially the enforced inactivity of the long winter. Even the educated Russian gives comparatively little response to the actual demands of life; he is more or less the victim of fancy and temperament, which sometimes leads him to a despondent slackness, sometimes to emotional outbursts. Here we have the want of organization, the disorder, and the waste of time which strikes the Western visitor to Russia."

Though the tidiness of this description cannot contain the vitality of the Russian character, no person—and surely no Russian, in particular—can think of the Soviet Union without the image of its vast, inexorable landscape, which at once isolates men from one another and unites them in a common struggle; which reminds them ceaselessly of man's insignificance in comparison with nature and which, nevertheless, instills pride in their achievements against it.



The enormity of the plain was matched by its severity; the Russian, in turn, became tough. The plain was relentless; the man became patient. His quality of doing nothing, which to the outsider might seem like laziness, was in reality a quality of waiting, which to the Russian is a form of activity. The uncompromising spirit of his land is expressed in the saying, "When you do strike—strike hard!"

CLIMATE AND GOVERNMENT

The great size of the plain caused life on it to be formless and chaotic.

The Russian had to impose order and limitations on it. The need for government ran counter to his natural independence of spirit, which has been described as "chronic bloody-mindedness." It has been said that while the Russian people believe in the necessity of government, they do not really believe in government itself.

Because the Russian plain was so ruthless, the rule needed to impose order on it had to be even more harsh and arbitrary. One fights anarchy—absence of control—with autocracy—absolute control.

Joseph Conrad, a Polish patriot and also one of the great masters of English prose, wrote that the inhumanity of tsarism fell like a "curse from Heaven" on the inhumanity of the immense plains.

Thus, the Russian people, though inherently independent to the point of anarchy, bound themselves with arbitrary restrictions in order to survive.

Yet, however they bound themselves to it, however it enslaved them, the Russians loved their soil. The attitude of the serfs to the landlord was always: "We are yours, but the land is ours."

The Russian Peasant: An Enduring Type

One cannot understand the character of the present people without going back to the Russian peasant. Most of the men who now rule the Soviet Union, including Khrushchev, were once peasants. They were born with the traditional peasant attitude toward authority. Now that they have become the authority, they have assumed the ways of thinking of rulers, but this new attitude is superimposed on the old.

The peasant attitude persists because it was not long ago that the peasantry was abolished: it is only a century since the serf was freed, and barely half a century since he became the Soviet citizen. Before the Revolution of 1917, four fifths of the people were peasants. The ordinary Russian still has the peasant character. It is natural for people to cling to their traditional ways of thinking and feeling. The underlying patterns of Russian behavior are those that the peasants developed over the centuries. Superimposed on these are the patterns developed by Marxist doctrines.

Since he is so important in Russian life, what sort of man is the peasant? In his book *Russians as Russians*, Edward Crankshaw, an English expert on the peasant's character, calls him a "mixture of liar, sceptic, simpleton, rebel, sycophant, saboteur, grasper, Good Samaritan, passive register, sanguinary tyrannicide, hard head and soft heart."

What has been said of him in literature has often been harsh. A soldier in Tolstoy's play *The Power of Darkness* tells a peasant woman that she is no better than mud. He says that there are millions of her sort in Russia and all of them are just blind moles. Turgenev's nihilist-hero, Bazarov, in

Young people from Soviet Central Asia meet in Moscow for a youth parade in Lenin Stadium. The fox-fur caps and brightly colored costumes are traditional in several of the Asiatic republics of the U.S.S.R.

Fathers and Sons, quotes a folk proverb that says the Russian peasant will cheat even the Lord. The fact that he thinks so low of himself, Bazarov says, is the peasant's only good point.

Yet in his play *A Month in the Country*, the same Turgenev praises the intelligence of the Russian peasant. However, in Maxim Gorky's play *The Lower Depths* a peasant exclaims that he does not need a conscience since he isn't rich. The young contemporary Russian poet, Yevgeny Yevtushenko, known in the West primarily for his integrity and in his own country for his talent, also says that those who have no bread have no need of truth.

RUSSIAN TRICKINESS

The quality of deceit is enduring and persistent in Russian literature and life, and because of its consequences in the 20th century it deserves attention. While visiting Russia in 1839, the Marquis de Custine said that a lie protects the social structure, whereas the truth destroys the state. "Lanin," the St. Petersburg correspondent of the London *Daily Telegraph* during the 19th century, said that Russians, unlike Anglo-Saxons, do not revere the truth.

The Russians, however, are so wholeheartedly naïve about their deceitfulness that foreigners are startled and even, sometimes, grudgingly intrigued. This deceitfulness is not held together by hypocrisy, a quality the Russians strikingly lack.

This lack of hypocrisy, however, does not hinder the Russians from a great display of cunning to get their way. Their deceitfulness is to them a genuine part of being themselves.

A recent study of Khrushchev in the *New York Times* pointed out that the Russians lie very easily and expect everyone to know they are lying. If they are caught, they are not embarrassed, but merely shrug their shoulders, smile and change the subject. Khrushchev is particularly talented at this.

The Soviet ruler is a master of deceit and his ruthlessness and trickiness are well-recognized, even in Russia. A story is told of Khrushchev's appearance at a Party meeting to explain his



denunciation of Stalin. A note is stealthily passed to him from the audience. It asks what he was doing during the period of Stalin's crimes. Khrushchev fumes and demands that the author of the note make himself known. No one stirs. Khrushchev repeats his threatening demand, then laughs and says: "Well, now you know what I was doing."



RUSSIAN EXPLANATIONS FOR THEIR TRICKINESS

This, then, is the extension of the peasant-type today. What explanations have the Russians for themselves? Maxim Gorky, who had an extremely brutal childhood, was told by his grandfather to be tricky because simple people are fools. Maxim

then asked him if the Russians are not both good and strong. His grandfather admitted that sometimes they are, but that these traits do not count. The only way to get ahead, he insisted, is to be devious; those who are not fail.

The 19th-century satirist, Mikhail Saltykov-Shchedrin, explained in his novel *The Golovlovs* that the Russian

character develops like a weed because nobody tries to nourish it or to direct its growth in any one direction. This is why, he says, there are so few Russian hypocrites and so many liars and idle talkers. The Russians don't try to justify their behavior, because they do not have any social principles, or know of any they might choose. They are quite free to



Members of the famous Beryozka Dance Ensemble get into the "swing of things" as they move in unison to the foot-stomping rhythms of the balalaika, a traditional instrument for the accompaniment of Russian folk music.

lie and babble because they have no conscience.

Suspicion is another prominent trait of the peasant. Indeed, few are more distrustful than the Russians, whose inherent fear of being watched by strangers has been intensified by their revolutionary experience.

The peasant is slow to change his opinions and beliefs. Lenin was more successful than his immediate and more democratic predecessors because he knew that if he told the people too much too quickly they would stone him rather than be saved.

Still another peasant trait is patience, which the Russian believes is all important. Perhaps because he is so patient, when his anger is aroused, it is violent. His isolation from other men, in addition, often produces slovenliness and a lack of sense of human worth. Therefore, the peasant often presents one face to the outside world, which his experience tells him to distrust, and a different face to his own community.

This same Russian peasant, who is described as having such a slippery character, is as much an individualist as he is a follower, as intelligent as he is shrewd, as brave as he is evasive. It should not be forgotten that he beat back two hundred German divisions in World War II during an unparalleled winter of endurance. In this battle he was almost unbelievably inefficient, but his willingness to die for his land persisted.

PEASANT TO CITIZEN

This Russian peasant, once important only to himself and his community, has now become the Soviet citizen, important to the world.

The peasant-citizen lives in a society in which, if he still serves, he considers himself an equal to those he serves. He is not embarrassed, he is not degraded; his work is honorable and useful to the state.



On a warm Sunday afternoon the members of a collective farm have donned their traditional dress to participate in a local festival. Accompanied by a makeshift orchestra, they dance to the swaying rhythms of an old melody.

At a New Year's festival for schoolchildren in Moscow, two pantomimists act out a musical version of an old Russian folk tale about a rabbit and a cat.

Characteristically, the Russian rarely shows his feelings by his facial expression. Because of this, travelers to the Soviet Union are frequently deceived by the people they see in the streets, who often seem drab and purposeless. This lack of expression, however, is a protective mask. It is also a reaction to the brutalities and suffering the people have endured.

The Russian in the street seldom smiles, and never without good reason. He is, however, self-assured and has a certain, confusing, inexorable logic, born in part of the naïveté of extended national isolation and in part of the arrogance of believing the Soviet way is the right way. He is not easily fooled and is skeptical of government promises.

It is sometimes said that the Russian people prefer police rule to freedom. Yet these are the people who cheered Boris Pasternak for his translation of Shakespeare's line, "And art made tongue-tied by authority." These are the people who cried out spontaneously when Yevtushenko read his famous poem, "Babi Yar," in which he says that he is a Russian by virtue of his making anti-Semites hate him as if he were a Jew.

In addition to the peasant, there are other characteristic Russian types. Writers from Gogol to Chekhov have exposed the pettiness and tiresomeness of the lower-middle-class bureaucrats. In one of his classic short stories, Gogol dryly exhibited the correct administrative procedure for a minor civil servant to follow when he has lost his nose. In another, he caught the humanity and pathos of a civil servant whose life and death centers about his overcoat.

The Russian Upper Classes

Literature has frequently had harsh things to say about the peasant and the bureaucrat. What it has had to say about the upper classes is perhaps

A small musical ensemble from the Tuva A.S.S.R., a region near the Mongolian border, display their rare collection of beautifully decorated antique instruments.





Showing more enthusiasm than art, a group of students in Samarkand, Uzbek S.S.R., rattle the floorboards during an impromptu dance to the strains of a guitar.

even more harsh, because more is expected of them.

In *The Lower Depths*, Maxim Gorky has compared belonging to the nobility with having smallpox. One may get over both of these conditions, but both leave marks. Bazarov, the representative hero of Turgenev's *Fathers and Sons*, tells his upper-class friend that his kind, the gentry, express either indignation or submission only in a refined way that is useless. They don't know how to fight, for they are afraid of mud and dust. The Bazarovs of the world are better, he says, than the gentry, because they are fighters.

Chekhov seems to agree with this. In his play *The Cherry Orchard* he tells us that the great majority of the Russian intelligentsia have not learned how to work. But they must learn, for in this play every blow of the axe bringing down the trees of the cherry orchard helps to build the new world. And in his play *The Three Sisters*, Irina announces her determination to work, to give her life for the new world.

Of the "romantic" member of the Russian intelligentsia, Dostoyevsky has written that he sees more clearly than the realist. The Russian romantic

is a many-sided man who is the greatest of all rogues. He has an ideal and, although it may not stop him from sinking into degradation, he never loses sight of it. The amazing thing about this Russian character, Dostoyevsky finds, is that he is able to be thoroughly honest at heart without ever ceasing to be a rogue.

The Russian Temperament

The emotional personality of the Russian expresses itself in boundless optimism and in deepest melancholy; in good humor and in fierce anger; in passivity and in violence. It is a temperament that is gloomy but grand, rigid but capable of shifting, apathetic but capable of great achievement.

We must think about the Russian temperament in terms of emotional hyperbole. Dostoyevsky confessed that he went to extremes in everything.

What is striking about the Russian's ability to abandon himself to either melancholy or optimism is the wholeheartedness of the abandonment. His tendency to break out, after a long period of inactivity, into orgiastic outbursts of the most violent nature is well-known. These outbursts may be ones of joy or grief; of drunken-

ness, lechery, cruelty, or, in wartime, of pillage and rape.

There is no strain in the Russian of what in America is known as the puritan heritage. Russians have no love of austerity, nor do they feel guilty when they are idle or violent. While in training with the Diaghilev Ballet, the ballerina Dame Ninette de Valois observed that because the Russians are not exhausted by the restraints of accuracy and discipline, their vitality springs forth unhampered.

Maxim Gorky wrote in *My Childhood* that Russian alternations of mood between happiness and sorrow occur so swiftly that they are not noticed.

Perhaps one can say finally about the Russian temperament only that it is contradictory and profoundly at odds both with itself and with the American national temperament.

What explanations do the Russians themselves offer for these personality traits?

Chaadayev, a Russian philosopher who looked into the depths of the national soul, explained that the inspiration that makes Russians so bold and reckless also makes them unable to distinguish between good and evil, between truth and falsehood. They lack the sustaining motives that drive other peoples to advance their nations.

Gorky said in *My Childhood* that because Russians know great misery and tedium in their everyday lives, any escape from these conditions is a diversion. Thus, the greatest grief or brutality is a kind of carnival, a break in the monotonous pattern.

In his play *The Smug Citizen*, Gorky goes on to say that in the Russia of his day the sober, hard-working man got nowhere; therefore, it was better not to try, and to be a drunkard or a tramp. If one's choice is only between drinking vodka and drinking the people's blood — that is, between harming the people by one's actions or not acting — vodka is the better drink.

Goncharov's Oblomov, in the novel of the same name, suffers from a common Russian malady: he lacks the energy to blaze new trails, yet he is unable to follow the old ones. Tolstoy's Pierre (Count Behuzov in *War and Peace*) believes in the possibility of good and truth, but he sees so clearly the evil and falseness of life that all his potential action is paralyzed.

Finally, one Karamazov brother says to another in Dostoyevsky's novel that sometimes it is very unwise to be a Russian.

Russian Humor

The things people find funny are an important clue to their character. Though, as we have said before, the Russian does not often smile, and never without good reason, he has a sense of humor. Russians and Americans, however, do not laugh at the same things.

The Russian sense of humor includes all kinds: irony, ridicule, exaggeration. Russians laugh, but do not allow others to laugh, at their own laziness and at the stupidity or corruptibility of their officials. Broad slapstick humor, though there are still examples, has been largely replaced by dry wit. The Russian laughs when

an expected censure is turned aside. So tense is his reality that it is relieved by a mild jest.

Pravda is a natural target for humor, for even in the Soviet Union it is widely known that it does not print all the truth. A typical joke asks how *Pravda* would report a foot-race between two men, one a Russian, the other an American. The answer is that Ivan was second, while Joe came in next-to-last.

Russian humor is sometimes broader than it would be in the United States, but it does not contain any malice.

Modern Science and the Russian Character

In their attempt to understand the Russian national character, Western observers have found that modern sociology and psychology offer valuable insights.

The annual Parade of Youth in Moscow's Lenin Stadium draws colorfully costumed contingents from every section of the U.S.S.R. The young people of the Soviet Union may belong to three nationwide youth organizations: the Little Octobrists, for young children; the Young Pioneers, for early teens; and the Komsomol, for those in their later teens and twenties.



SOCIOLOGY

The well-known British sociologist, Geoffrey Gorer, suggests that the social phenomenon of hindering the free movement of the Russian infant plays a large role in the development of the child's character and markedly influences his temperament in later life. In this practice, known as "swaddling," strips of cloth are wound around the newborn baby, reaching to the neck and keeping the arms tightly bound to his sides.

The purpose of swaddling, chiefly a Ukrainian practice, is to induce placidity. Some Russian psychologists explain that if a baby's arms were left free, he would wave his hands in front of his face. He might thereby frighten himself to the extent of permanently injuring his nervous system.

Gorer suggests that the infant's resentment at the confinement imposed by swaddling leads to frustration in later childhood and in the adult. Gorer's belief that Russian tendencies toward destructive violence and guilt

feelings may be traced back to swaddling is regarded unfavorably by other sociologists and psychologists.

PSYCHOLOGY

Soviet leaders have been very clever in applying Pavlov's psychological experiments to produce in human beings the behavior patterns they consider desirable. Pavlov, in a now-classic series of experiments, offered food to a dog. When the animal saw the food, he instinctively began to salivate. Through careful and arduous work, Pavlov was able to produce this same instinctive response with bell signals instead of food. He had made the dog identify the sound of the bell with food. This learning procedure is known as "conditioning" and the learned behavior pattern is called the "conditional response."

The pattern followed in Soviet propaganda shows an application of the very methods Pavlov used on his dogs. In manipulating both their own people and world opinion, Communist leaders have had considerable suc-

cess. The typical Russian's hostility to America may be attributed to conditioning; the belief of the African nations that the Soviet Union is sincerely interested in promoting their independent welfare has been similarly produced. This is a clever method and one hard to combat.

A very interesting analysis of the Russian mind appeared in the *New York Times* in 1962. Lord Taylor, a psychiatrist, examined the behavior patterns of Soviet man from the point of view of the ways in which they do or do not conform to the major psychotic illnesses of modern man.

We have already discussed the tendency of Russians to alternate between the emotional extremes of long periods of uncontrolled elation and feverish activity and long periods of gloom and sluggish apathy. In psychoanalytic terms, these mood-swings correspond to the "manic-depressive cycle": the manic stage is characterized by violent excitement; the depressive stage by melancholic inactivity. Communist leaders, according to Taylor, have understood and successfully manipulated these mood changes so that in their elated stage

Members of a dance troupe from the Voronezh region in the Don Basin humbly accept the applause of sophisticated Muscovites at the end of a charming evening of traditional folk dances.





A costumed chorus, accompanied by traditional instruments, presents a concert of folk music at a theater in Moscow. Such musical groups often travel on extended tours throughout the Soviet Union and to other countries. Their repertoire usually includes folk songs of many nationalities.

the people have produced socially constructive activity and in their depressed stage they have persisted in already established ways of doing and thinking.

If this theory is correct, it helps to explain the Russian love of bigness for its own sake. Both moods are extreme and violent; they do not permit the wide range of subtle feelings that lie between elation and gloom. When one is in the grip of such big emotions, one cannot comprehend gradations of thinking and feeling. Thus the Russian people tend to extremes in all things and expect everyone else to do the same. If one is not "for them," one must be "against them."

According to this theory, a person persists in one mood until it is eliminated by another. In a similar way, Russians cling to an established pattern of thought or action until they are taught a new one. This second, learned pattern then wipes out the first and totally replaces it. This may clarify the Russian attitude toward truth. If something is true, it remains true unless a new truth arises, in which case the first truth becomes false or is forgotten.

This theory would also explain the Russian reluctance to accept compromise. It is felt to be a betrayal of a truth that has been accepted as such. Similarly, the manic-depressive cycle would help to explain Russian fatalism, the belief that, as Tolstoy has said, events follow the course they are meant to take, whether or not people — even kings or generals — like it. This feeling is characteristic of the depressed state.

This same approach also identifies other major mental illnesses in the Russian character: anxiety (excessive fears), schizophrenia (withdrawal from reality into a fantasy world — expressed in the dreamers like Dr. Zhivago) and paranoia (a form of insanity that expresses itself in extreme delusions). This illness often takes the form of delusions of grandeur, which the Russians may be said to suffer from in excess.

Good and Evil

We have seen that the Russian na-

tional character is complex and formidable. As a people, they have been obsessed with the problems of good and evil, sin and remorse. Fyodor Dostoyevsky, one of the world's greatest novelists, strove throughout his life with these eternal questions, believing that the wicked are less wholly wicked and the good less purely good than man likes to believe.

Dostoyevsky realized that good and evil are interrelated, that even an action designed with the best possible end in sight — as indeed Communism was designed — may change along the way and lead eventually to a destructive end.

It is not surprising that such thoughts as these do not find favor in the Soviet Union today. Ultimately, however, the question of good and evil is not one of national character, but is the concern of each individual. Complex as is the Russian national character, and strange as Russian and Western man seem to one another, they share a common fear and hope.

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THE LANDS THAT MAKE UP MODERN Russia—the Union of Soviet Socialist Republics—were for centuries not only divided politically but were also inhabited by different ethnic groups. Some of these peoples were long-time inhabitants of their regions, while others settled only briefly during their westward march from Central Asia to various parts of Europe.

Very little is known about the tribes of southern European Russia, the present-day Ukraine. Though the Greek historian Herodotus gives an account of one of these tribes, the Scythians, his sources are mainly legendary and his information goes no further back than the 8th century B.C. Even less is known of the other main tribe, the Sarmatians. The little that is known for certain about the origins of these people suggests, however, that both tribes must have been influenced to some extent by the civilization of the Greek colonies along the Black Sea coast and in the Crimean Peninsula. Historians cannot agree whether there were any pure Slavic elements among the Leythians, a name that probably covered a confederation of related peoples.

Neither has it been satisfactorily established that Metropolis, the prin-



cipal town of the Sarmatians, corresponded to what is now Kiev. It is known that the northern provinces of the Persian Empire were repeatedly devastated by these nomadic peoples. King Darius I of Persia launched an expedition against them in 513 B.C. which achieved nothing because the Scythians, anticipating modern "scorched earth" tactics, simply retired before the invader, leaving him no choice but to turn back in frustration.

To the influence of the Greek colonies was added, at least in the south, that of the Romans. Roman merchants opened up the southern parts of the country, probably as far as the Dnepr River. The north and northwest must have remained quite unknown, however, for Pliny the Elder, writing about 50 A.D., still swore, as Homer and Hesiod had done, to the existence there of the Hyperborei. These mythical and perfectly happy people supposedly did their sowing in the morning, their reaping at midday, and in the evening gathered in the harvest of the fruit trees. They committed suicide, says Pliny, because they were bored with their easy life!

From the beginning of the 3rd century A.D., Roman influence, which had never been very strong, ceased even over southern Russia; while from Scandinavia a Germanic people, the Goths, spread toward the southeast. Between 200 and 275 A.D. they settled between the Vistula and the Crimean Peninsula but were

Left: An early painting depicts one of the first rulers of Kiev with his nobles. According to an old chronicle, the Rus—a Scandinavian people from Eastern Sweden—were first "invited" to Novgorod to rule the people there in 862. As the Rus secured their control of the lands to the north, they established a frontier settlement on the Dnepr at the edge of the steppe. This was the city of Kiev. Rus became the name of the surrounding region. The grand duke of Kiev soon became the center of a new aristocracy, called the druzhina. In 988, the third grand duke, Vladimir, accepted Greek Orthodox Christianity. A great military leader and a shrewd politician, Vladimir extended his territory by treaty and conquest. After his conversion, he established monasteries, churches and hospitals throughout his domain until his death in 1015. Venerated as the first saint of the Russian Orthodox Church, Vladimir became the hero of innumerable folk legends.

Right: Byzantine influence dominated Kievan culture for centuries. This mosaic of St. Demetrios of Salonica was done in the 11th century by a Byzantine artist for the Mikhailovsky monastery in Kiev.





The church of the Intercession of the Mother of God, in the ancient city of Vladimir. In the mid-12th century the city was sacked by Andrei Bogolyubsky, who later called himself Grand Prince of Suzdal, Vladimir and Rostov (all of which were in the north, near modern Moscow). Bogolyubsky adorned his capital at Vladimir on the Kliazma River with stone buildings like this church.

plains, Finnish tribes of Mongolian origin appeared. They were later to be pushed back toward the Baltic and along the White Sea.

The Slavs

It was in the midst of this ferment, some time between the 3rd and 4th century A.D., that the Slavs first appeared. Some authorities think that they, too, came from Central Asia, under Mongolian pressure, and were mixed with strong Mongolian strains. Others believe them to have originated in the region of the Prypet marshes and to be the descendants of the tribes called "Venedi" by the Romans.

This difference in opinion cannot be resolved with certainty. But whatever their origins, these new-

comers filled the vacuum created by the movement of the Germanic races toward the south and the west. Some of them became known, from the region where they finally settled, as the South Slavs; others settled between the Carpathians and the Danube. The rest remained between the Baltic and the Don, hemmed in on the west by the Lithuanians and on the north by the Finns. The western group, known at the time as the Polani, came under the influence of the Carolingian Empire and eventually set up the dukedom of Poland. The other tribes, divided among themselves, were dominated first by the Avars and then by the Khazars.

For some years these Slavic tribes remained a peasant class, subjugated to lords who formed a military caste trained for war and conquest. Their religion involved the worship of natural forces. Their implements were made of wood. Their social institutions included the families and tribes common to all primitive peoples. Of particular interest in view of later experiments in communal living is the South Slav institution—the *zadruza*. Communities of fami-

expelled at the very end of the 4th century by a new wave of Asiatic invaders, the Huns. The Huns were apparently of Tatar (Mongolian) origin, although the question is still open to doubt and some scholars have sought to identify them with the Slavs.

This was also the period of the great invasions from Central Asia, probably caused by severe drought in that region. The Bulgars migrated from their homes via the Volga River to the Danube. The Avars moved toward modern Hungary. The Khazars descended the Don, settling between the Caspian Sea and the Sea of Azov. Finally, the Magyars arrived in southern Russia and spread farther to inhabit the Danubian plains. Farther north, toward the Baltic, the Lithuanians lived. Their language, with its close resemblance to Sanskrit, is clear evidence of their Indo-European origin. In the very far north, across the frozen Russian

The golden gate of Vladimir also dates back to Bogolyubsky's reign. From his time until 1431, Vladimir was the coronation city of the Grand Princes of Rus.



A 15th-century icon panel depicts three stages of a battle between the cities of Novgorod and Suzdal in the 12th century. In the top panel, holy icons are being carried from the church to the kremlin, or fortress, where the soldiers are gathered. The middle panel shows the attack on the kremlin by the archers of Suzdal, who are shooting at the icon. The bottom panel shows the Novgorodians beating back the Suzdalian charge with the aid of a martial-looking angel.

lies lived in a free association in which the individual, without renouncing his personal rights, subordinated them to the general interest. This institution, however, fell into disuse. Of similar interest centuries later is the village *mir*, for an organization providing the collective administration of land by the inhabitants of a particular community.

THE PRINCIPALITY OF KIEV

As is true of so many other aspects of early Russian history, the birth of the first Russian state is still veiled in legend. The most credible of the many theories advanced suggests that the small fortresses constructed by different tribes as a defense against sudden attack were enlarged to protect the increasing flow of commerce in the zone between the Gulf of Finland and the Black Sea. The connecting waterways made the long journey much easier, and the gradual cessation of invasions from the east encouraged an increase in the flow of goods.

The settlement of groups of Scandinavian Vikings or Varangians on Slavic territory probably occurred at about this time—the 9th century. With their well-known qualities of leadership, these Northmen may well have taken over and directed the *druzhina* (military fraternities) which had arisen in the various Slavic states—Kiev, Chernigov, Smolensk, Rostov and Novgorod—to defend their commerce against possible enemies. Legend has it that the Slavs asked the Vikings to rule over them as mercenary military leaders and impartial arbiters. A northern chieftain named Rurik was invited to come and bring order into the affairs of the Slavs. The tribes that Rurik united and led were called the Rus (the meaning of this name is lost to us). The Vikings, however, in spite of their organizing and military abilities, were apparently not very cultured or very numerous, for they had no influence on the language or the social structure of the Slavs.



According to tradition, Rurik became Prince of Novgorod (862-879) and established his sway over the whole area between Lake Ilmen and the Volkhov River. The real founder of the family's power, however, was his relative, Oleg (879-912), who gradually extended his conquests southward from his northern base. By expelling two other Viking chieftains, Askold and Dir, from Kiev, Oleg united the two principalities of Viking origin. Su-

premacy passed to the south, however, and Kiev supplanted Novgorod as the major city of the new state.

This is hardly surprising since the south was in contact with both the Byzantine and Arab worlds, the two greatest centers of medieval civilization, while the north was still at a primitive stage. In the west this young state was besieged by the Poles, and in the east Asiatic nomads such as the Pechenegs represented a constant danger. Yet Oleg managed

to defend both his frontiers and may have made war on Byzantium itself. (Some historians deny that such an expedition took place, but there is no doubt that an unsuccessful expedition was launched against the capital of the Byzantine Empire in the reign of Igor, 912-945).

From its very beginning, the Russian State was irresistibly attracted to Constantinople and the Aegean Sea. Quite probably the Russians were impelled not only by the fascination of the "Second Rome," but also by the need to open a means of communication with the peoples of the eastern Mediterranean, at that time the richest area in the world.

RELIGION

The Christian religion had already gained numerous adherents in Kiev. In the middle of the 10th century Princess Olga, a convert to the new faith, wished to convert her people and asked the German Emperor Otto the Great for help. He sent her Adalbert, Archbishop of Mainz, but because the Slavs were not ready for the new religion, or because the delegate was guilty of tactlessness in his dealings with them, the mission failed. This failure had far-reaching consequences. When the country was converted to Christianity in the reign of Prince Vladimir (980-1015), it partly was through the efforts of the Greek Church of Byzantium. This resulted in the adoption of Greek Orthodoxy, the rites and theology of a faith that opposed the leadership of the Roman Papacy and was to break off completely in 1054.

This conversion of Vladimir and his people, which did not take place without resistance from the Scandinavian elements of the population, drew Russia away from paganism and, subsequently into the Christian community of Europe.

From Vladimir's time may be dated the distinction between social classes in Russia, a cleavage that was to grow sharper as the centuries passed. Aside from the customary difference between free men and slaves, there first developed a class of merchants and soldiers. Later the boyars, or advisers to the prince's government, became a separate class. The ownership of land was divided, but gradually there arose a landed aristocracy as well as free peasants and tenant farmers.

RISE AND DECLINE

The Scandinavians who conquered the country, unifying the dispersed Slavic and Finnish tribes into one state that stretched from the Baltic to the Black Sea, also brought with them the germ of their own ruin. Recognizing the seniority of Kiev and its territory was no remedy for the division of the country among a ruler's sons. The situation created by this idea was later aggravated by other customs peculiar to the Russian State, such as the concept that the entire domain belonged collectively to all the princely heirs of a family (a relic of that collective tradition referred to earlier).

But that was not the worst. Russia had been divided into a series of principalities, in hierarchic order. The most important was Kiev, then Chernigov, Pereyaslavl, Vladimir and so on. These states were each assigned to a prince in descending order of importance. When a prince died, the one immediately behind in the hierarchy theoretically inherited his position, to be replaced in due course by his successor, and so forth. Confusion could hardly be avoided even had there been a single clear line of succession; for lack of such a line, because of the profusion of younger branches of families, and because of conflicts among the heirs, the state of Kiev collapsed into anarchy. This process was accelerated by the efforts of outlying regions to free themselves from the control of the capital and by the conflicts between the ruling prince and the *Veche*, or assembly of townspeople. The institution of the *Veche* was probably established before the time of Rurik, but its authority in relation to the ruler was never defined in writing.

The Russian State now came under two successive rulers whose reigns, if troubled, were essentially constructive. Under Yaroslav the Wise (1019-54), Kiev became a beautiful and, by the standard of the times, cultured city. And it was in the reign of Vladimir II Monomakh (1113-25) that the first Russian literature appeared. Then the State fell into chaos. In 1169, Kiev and various settlements along the Volga were captured and plundered by the troops of Andrei Bogolyubski, ruler of Suzdal, and the capital was transferred to Vladimir. But in fact the events of that year meant the dis-

junction of the Russian State, which from then on was in practice divided into four major parts: the principalities of Suzdal and Galicia and the republics of Novgorod and Pskov.

THE DISUNION OF RUSSIA

The history of Russia in the century after 1169 is the story of the gradual dissolution of the four states into which the principality of Kiev had been divided. They warred incessantly among themselves and against their invading neighbors. From the east came the Polovtsy and Mongols; from the Baltic region Germans and Swedes; and from the Carpathians, Poles and Hungarians. It is a monotonous but bloody story of wars, treachery and murder.

THE PRINCIPALITY OF SUZDAL

The most important of these successor states was probably the northern principality of Suzdal. When Prince Andrei Bogolyubski conquered Kiev and re-established the capital in Vladimir, a town which had only been in existence for perhaps fifty years, the move had far-reaching consequences. In the south the princes had built their power on lands where a social organization already existed, and they had been forced to accept limits to their authority imposed by the *Veche* and the boyars. In the north, however, they found themselves in a position to encourage colonization, to conquer new territories, and to found new towns. It was thus easy for absolutism to strike root. The limitations on absolute power, which southern emigrants had once imposed on the north as well, were abolished; and the autocratic organization of Russia, which lasted until 1909, found its beginnings here.

There were important consequences from the ethnic point of view as well: the Finnish element of the population was absorbed by the more numerous Russians, and from this process of assimilation developed the "Greater Russian" as distinct from the Ukrainian or "Lesser Russian" type. From a social point of view, the establishment of Vladimirian Russia was a backward step. The agrarian population, which gradually prevailed over the urban, became divided into two distinct classes. The ruling group, which in England would be called the "landed gentry," included the nobil-



An icon, *The Glorification of the Madonna*, painted in Pskov in about 1500. In the mid-14th century, after some 200 years of domination by Novgorod, the town of Pskov grew strong enough to deny its allegiance to the larger city and joined the Hanseatic League. Corn, tallow, furs, tar, honey and timber were sent west to the ports of northern Europe in exchange for manufactured goods. During this prosperous period, forty large churches adorned the city, and painters developed a distinctive style of their own.



Modern Novgorod, above, still bears a certain resemblance to the Novgorod of old, shown in the engraving, above right. "Great Novgorod," as the city then called itself, reached the height of its power in the early 14th century. Because of the city's flourishing trade with eastern Europe, it became known as the Venice of Russia. At one time it had an estimated 400,000 citizens. But plagues, fires and continued wars with the Swedes, Germans and the princes of Moscow gradually exhausted the city. Novgorod never recovered after the newly established St. Petersburg (now Leningrad) took over Novgorod's Baltic trade in the 18th century. Today the city has only some 60,000 people.

ity, the officials and the clergy. The largest class was the peasantry, which usually worked the land, in subservience to the gentry. There were also serfs, most of whom had fallen into bondage through debt, and slaves, mostly war captives. Many peasants, and even a number of people higher in the social scale, developed nomadic habits. While this eventually had the advantage of assuring Russian sovereignty over huge tracts of semidesert territory, at that time it lowered the level of culture once reached in Kiev. In the end,

as a result of the endless division of power between the direct and indirect branches of the ruling house, the state of Vladimir broke up into yet smaller units, such as Tver, Ryazan and Moscow. This process continued even under the Mongols.

GALICIA AND POLOTSK

A different fate awaited the principality of Galicia, situated in the southwest corner of the Russian plain and extending as far as the chain of the Carpathians. It was this early state that gave its name to the

present region of Galicia. It had a brief moment of glory under Yaroslav Osmomysl (1152-87), but after his death the state declined, notwithstanding its unification in 1200 with Volhynia, a neighboring state along the banks of the Bug and the Prypet. Volhynia and Kiev came under Lithuanian control about the middle of the 14th century, and Galicia became Polish in 1386 after a long struggle. The principality of Polotsk, in the northeast along the Dvina River, also succumbed to the Lithuanians.

NOVGOROD

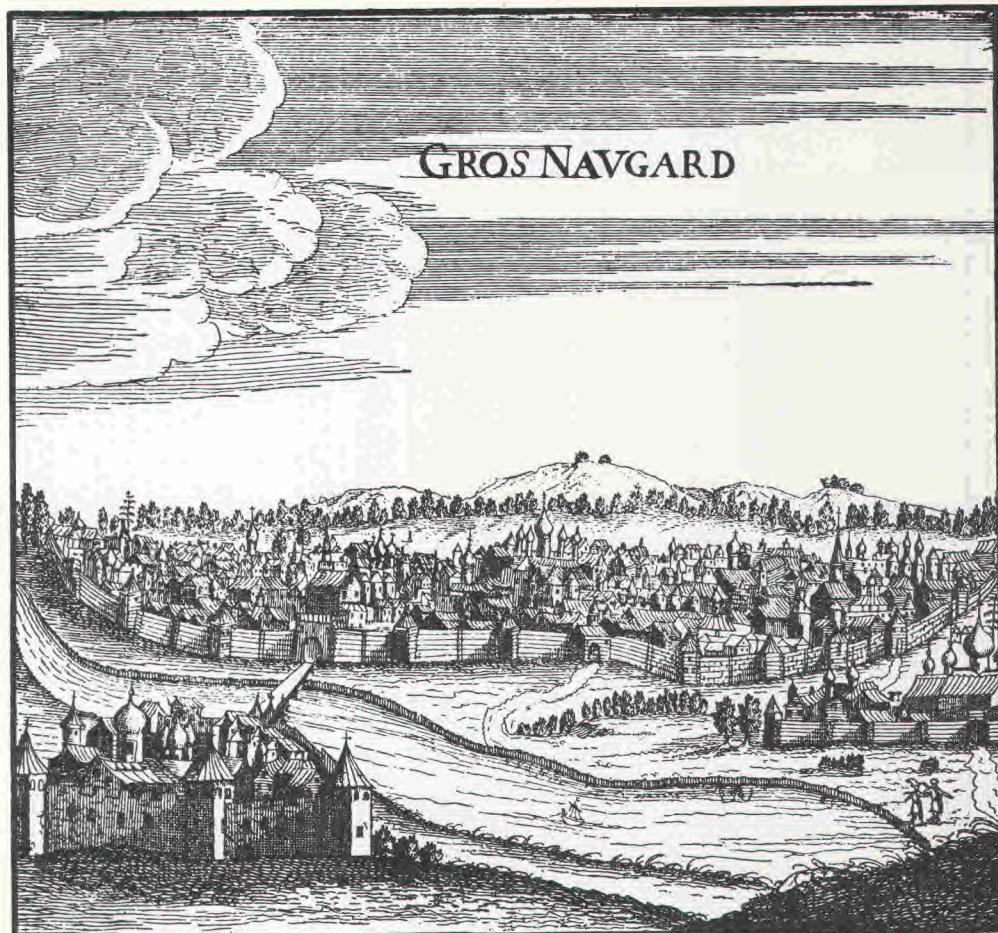
The rulers of Novgorod, which had previously regained its independence, were happy to witness the collapse of Kiev. They were now able to organize Novgorod as an oligarchic republic. A commercial

class developed there that reinforced the powers of the *Veche* at the expense of those of the princes, who were eventually left with little more than advisory powers. The territory of the state, originally confined to the region between the Volkhov River and Lake Ilmen, grew to include a colonial area reaching the White Sea in the north and the Urals in the east. The fruits of hunting and timber from the huge northern forests were thus added to the more usual commercial traffic in Oriental goods and amber.

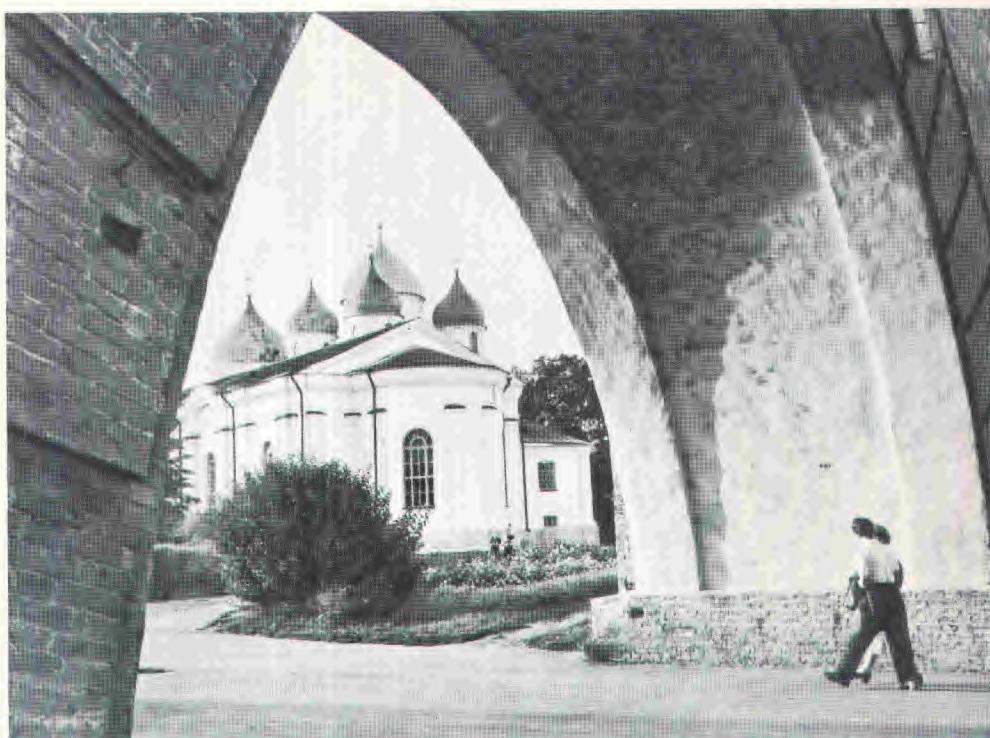
At the beginnings of the 13th century, however, Novgorod's enviable position was menaced from the south by the Tatars, or Mongols, who cut its lines of communication with the Black Sea. In the Baltic region the Danes conquered Estonia, while the Swedes occupied Finland. The Knights of the Order of Sword-bearers, under the pretext of converting the remaining pagan peoples of the southern Baltic coast to Catholicism, extended German influence to east of the Vistula and Niemen Rivers, reached the Gulf of Riga, and settled in Livonia. And the Lithuanians, themselves pressed by the attacks of another military order of religious origin, the Knights of the Teutonic Order, threatened the territory of Novgorod from the Vistula.

The man who saved Novgorod from blockade of its commerce, intended as a prelude to military defeat, was Prince Alexander Yaroslavich (1220-63). In 1240 he defeated the Swedes on the Neva (thus earning the nickname of Nevsky, by which he has gone down in history). In 1243 he led his forces to victory over the Teutonic Knights in a hard-fought battle near Lake Peipus, and in 1256 he again repulsed the Swedish armies seeking to cut Novgorod off from the coast. The other northern republic and Novgorod's leading commercial rival Pskov, was also saved from German domination by Nevsky's victory in 1243. In the 14th century, after protracted struggles against its neighbors, including

The walls of the Novgorod kremlin (fortress) were kept in continuous repair during the years the city was fighting to maintain its independence. Originally made of wood, the walls were rebuilt of stone as the weapons of invading armies became more powerful. The cathedral of St. Sofia, begun in 1045, is seen here through an entrance into the kremlin.



"Great Novgorod" an early, engraving



Novgorod, Pskov succeeded in obtaining recognition of its independence, but its power and wealth never equaled that of its great rival.

The Tatar Invasions

While these struggles continued among the Kievan succession states, part of Russia fell victim to a frightful scourge from Asia—the Tatar invasion. These Mongols, who had conquered northern China by the beginning of the 13th century, suddenly turned westward from their Central Asian homeland.

In 1223, on the Kalka River, they routed an army sent against them by almost all the Russian princes of the time. But actual invasion did not take place until a few years later under the leadership of Batu, a grandson of Genghis Khan. His task was made considerably easier by the

internal wars of the Russian princes. After taking Bolgary, a Bulgarian possession on the Volga, they captured and destroyed Ryazan, Vladimir, Suzdal and Rostov. Yury II, Prince of Vladimir, was killed in a great battle on the Siti River in 1238. Prevented by a spring thaw from advancing on Novgorod, the Mongols turned aside to plunder and burn Pereyaslav, Chernigov and Kiev. Finally, the principality of Volhynia-Galicia fell to them in 1242.

Halted from further western advance by the heroic resistance of the Poles and the death of the Great Khan Ogadai, Batu disrupted the unity of the Mongol Empire by carving out to the west of the Urals a vast dominion, the State of the Golden Horde. He took as his capital Saray, near the Volga. This city quickly became rich and populous,

rising even to the status of see of an Orthodox bishopric. Once military victory had been achieved, the Tatars were normally content to exact tribute from the princes, whose titles were conferred by the Great Khan. The laws, customs and religion of the Russians were respected in a spirit of tolerance then unknown in the West. The supposed horrors of the Mongol occupation were largely based on exaggerated stories of the massacres and sackings that took place during the invasion, and have been in great part discredited by modern historians.

Among the principal results of the "Mongol yoke," the most obvious was the devastation of southern Russia. Another consequence, already mentioned, was that emigration to the north depopulated the country and impoverished it even further. The civil wars did not stop, for the Mongols allowed the Russians self-rule as long as tribute was paid. Customs became cruder, with the result that the Russians broke off the links with the West which up to that time they had maintained to their own interest and advantage. Only the rulers of Kiev, Smolensk, and Galicia tried to continue these contacts.

Subjugation to the Muslim Mongols reinforced the religious consciousness of the Russians, and the Orthodox Church became a greater spiritual force among the people. The easy-going Mongol administration was in certain respects an education to the Russians; the organization of an efficient transport and postal service was especially noteworthy. The inevitable frictions arising from the arrogant demands for tribute diminished when the princes obtained permission to act as gatherers for the taxes, which they then turned over to the Great Khan.

Later, as the position of the rulers of the Golden Horde decayed, cor-



An old painting of Ivan Kalita, Grand Duke of Muscovy, and his nobles. For years after the Tatar conquest of the 13th century, the princes of Russia were obliged to pay tribute to the Tatar Khan. The Khan appointed one ruler to gather all the Russian tribute. When Ivan Kalita of Moscow acquired the right to be the Russian tax gatherer, he used his influence with the Tatars to expand his own dominions at the expense of his fellow Russians. He was very strict in collecting the tax; hence his nickname, kalita, which means "moneybags."



The Monastery of the Holy Trinity and St. Sergius at Zagorsk. Through Ivan Kalita's reign and that of his son, Ivan II, the Tatar tribute was paid, even though the strength of the Golden Horde was declining. Ivan Kalita's grandson Dmitri decided to stand up to the Tatars in battle. He gained the blessing of St. Sergei, or Sergius, the most respected religious leader in Russia at the time. From the Monastery of the Holy Trinity, some forty-five miles northeast of Moscow, Sergei encouraged his many followers to support Dmitri. The monastery, which has since become St. Sergei's shrine, became the religious center of northern Russia. The buildings in the foreground date from medieval times, but those in the rear were built later.

ruption became the only means of obtaining concessions. The richest sovereign could buy the title of "Great Prince," which at one time had been reserved for the rulers of Kiev. This assumption of the highest rank placed all others in the situation of vassals. In time, there rose to pre-eminence among the various city-states a new principality—Moscow.

BIRTH AND GROWTH OF THE STATE

Moscow is first mentioned in a document dated 1147, but it is probable that the reference is actually to a country residence of Yuri Dolgoruky, Prince of Suzdal. A few decades later the settlement had reached the dimensions of a town because of its excellent geographical position. It lay at the confluence of the Neglinskaya and Moskva rivers near the frontier between the principalities of Suzdal-Vladimir and Chernigov, where the roads coming down from Rostov and Vladimir met the main highway. In the course of the territorial divisions made by

the princes of Suzdal for their children's benefit, Moscow was assigned about the year 1260 to Daniel, son of Alexander Nevsky. Pereyaslavl and Kolomna were soon added to Moscow's territory, and it became one of the many principalities into which the old state of Kiev had been divided.

It was at this time that vast masses of people surged northward, driven from their homes by the progressive decadence of the south. Many made their homes in the new state. The influx was partly responsible for the rise of an absolutist form of government, since these newcomers did not enjoy the privileges of the middle classes of Novgorod or other cities. The rulers of Moscow were the shrewd, prudent, unscrupulous and even, when the occasion warranted, violent descend-

ants of Alexander Nevsky. Above all, as their great ancestor had taught them, the princes of Moscow sought to retain the good will of the Khan of the Golden Horde. They took upon themselves the task of exacting tribute on his behalf from the other princes of Russia. This policy succeeded not only in freeing the country of the presence of the Tatar functionaries but also in frequently exacting more than was owed to the Khan. The princes kept the difference and thus filled their own coffers.

When in 1327 Tver, Novgorod and Ryazan refused to pay the Tatar tribute and the prince of Smolensk rebelled in 1340, it was the prince of Moscow, Ivan I Kalita (1328-41), who undertook to reduce them to obedience. He carried out his task with ferocious energy, putting their



Grand Duke Dmitry, above, proved the temporary savior of his people. In 1380 he defeated the Tatars on the plain of Kulikovo, as depicted in the painting below. Two years later, however, a new Tatar force sacked Moscow and forced Dmitry first to flee, then once more to submit to the Tatar yoke. By the time Dmitry died in 1389, the old "friendship" between the Tatars and the rulers of Muscovy was once again running smoothly.

lands to the torch and the sword, arranging the assassination of the Prince of Tver, and expanding his own dominions at the expense of the vanquished. He also obtained from the Khan the title of "Great Prince" in 1339, and it remained hereditary in his family.

The Principality of Moscow

Ivan I was the real founder of the Muscovite State. Parsimonious and shrewd (hence his nickname of Kalita, or "Moneybags"), he bought several cities to extend the Muscovite domain. In 1328 he added further luster to his state by obtaining from Vladimir (where it had moved from Kiev in 1300) the Metropolitanate of the Russian Church. Finally, on his deathbed, he refused to divide his dominions among his sons.

In this way, in the midst of many setbacks, the state grew and prospered under Simeon the Proud (1341-53), Dmitry Donskoy (1359-89), Vasily I (1389-1425) and Vasily II the Blind (1425-62). Under these princes came the recognition by Tver of Moscow's supremacy over all the other Russian states (1375); the submission of Novgorod, Ryazan, Rostov, Suzdal and Nizhni Novgorod; and the re-

nunciation by the Metropolitan of his agreement with the Patriarch of Constantinople to unite the Orthodox and Roman churches (1439). The autonomy of the Russian Church was proclaimed in 1458, a decision made by the Russian bishops.

The first rebellion against Tatar rule ended in defeat, but the victory of Prince Dmitry at Kulikovo on the Don in 1380 (which earned Dmitry the nickname Donskoy) showed that the Khan's army was not invincible and gave the Russian people some basis for national feeling. Dmitry's successors understood that the time had not yet come for final liberation, and for several decades they proceeded with great caution. A rash move by Vasily II brought him into conflict with the Tatars of Kazan, who defeated him in 1445 and obtained a ransom for his release.

IVAN III

Vasily's son and successor, Ivan III (1462-1505), is a great figure in Russian history. Although he is the subject of contrasting and contradictory judgments, historians agree that he was the founder of the modern Russian state. During his reign, autocratic government and the consolidation of the realm were advanced with equal vigor. He no longer allowed his boyars, as his forebears had done, to enter the service of another prince. He bound them for life by a measure of outright feudalism, awarding lands to them personally. Furthermore, he suppressed the power of his brothers and nephews in the principality of Ryazan, destroyed the independence of Novgorod (1478), acquired Yaroslavl and Tver (1485), and interfered in the internal affairs of Lithuania, his most dangerous enemy in the West.

After a victorious war against Lithuania, Ivan acquired the territories of Chernigov and Novgorod-Seversky (1503), which had been a bone of contention between the two countries. The basis of his foreign policy was an alliance with the Khanate of Crimea against Poland-Lithuania and what remained of the Golden Horde. In 1480 he was finally able to abolish the payment of tribute to the Khan of Saray. He had no need to go to war, only to show himself ready to do so. It could be said that from that moment Muscovite Russia had regained its complete independence.

